

UNIVERSITY OF CALIFORNIA

Los Angeles

Volume I

Time, Memory and Multiplicity: Exploring the Influence of Marcel Proust's

Narrative Language on the Musical Language of Henri Dutilleux

&

Volume II

300,000 Starlings Swarm Over Denmark

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor in Philosophy

in Music

by

David Gerhard Utzinger

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ABSTRACT OF THE DISSERTATION

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Professor David Samuel Lefkowitz, Chair

Henri Dutilleux's compositional language can be broadly divided into two categories: into a group of dynamic metamorphic techniques and processes the composer combined under the rubric of *processes of progressive growth*, and into different types of static and recurring pitch structures that have become known as *referential devices*. This dissertation explores the way author Marcel Proust's unique approach to the interconnected phenomena of time and memory in the novel *À la recherche du temps perdu*

influenced Dutilleux's approach to those phenomena in his works, and how that influence manifests in the processes of progressive growth, processes which result in a manipulation of the musical object that reflects Proust's treatment of human character as comprised of multitudes; non-linear formal types, like multiply-directed time and moment form, that replicate Proust's non-chronologic approach to narrative sequencing; the formation of dense associative memory networks that are similar to those created in *À la recherche du temps perdu* by Proust's expansive use of metaphor and foreshadowing. Chapter 1 introduces the concepts that will be discussed, provides biographical sketches of Marcel Proust and Henri Dutilleux, and describes the dissertation's scope and methodology; Chapter 2 surveys Marcel Proust's narrative techniques, focusing on those techniques which affect time, memory and the concept of multiplicity; Chapter 3 surveys the compositional techniques that characterize Dutilleux's processes of progressive growth; Chapter 4 provides representative examples of the processes of progressive growth from Dutilleux's string quartet *Ainsi la nuit*; Chapter 5 compares Proust's narrative techniques and Dutilleux's processes of progressive growth, showing how Proust's narrative language manifests in the temporally disjunct formal types, associative networks and multiple perspectives of objects and sound events that characterize *Ainsi la nuit*; Chapter 6 surveys the different types of referential devices, juxtaposing them with the processes of progressive growth, and discussing their role in providing a structural framework; Chapter 7 explores *gray areas*—musical objects and sound events that simultaneously express the dynamic characteristics of progressive growth and the static characteristics of referential devices.

300,000 Starlings Swarm Over Denmark (2019) is an original work for chamber ensemble by David Gerhard Utzinger. The work is overtly pictorial; its aim is to abstractly evoke the beauty, dynamic formal metamorphoses, and complex swirling movements that are created by the massive flocks of starlings known as *murmurations*. Like Dutilleux's *Ainsi la nuit*, this work makes use of temporally disjunct formal types. Specifically, it is comprised of the type of multiple and interrupted linear streams of music that define multiply-directed time. At times, portions of the various linear streams occur in succession—that is, they are cut into delimited units and rearranged. At other times they occur simultaneously, each stream progressing independently and at a discrete rate, while interacting with the other concurrent streams. Additionally, *300,000 Starlings Swarm Over Denmark* juxtaposes its dynamic and continually transforming sections with highly recognizable and static “chorale” sections, which occur at various points in the work. With this juxtaposition, the work replicates the similar juxtaposition created by Dutilleux's processes of progressive growth and his referential devices. *300,000 Starlings Swarm Over Denmark* is a multi-sectional, and multi-temporal, single movement work. Performance time is approximately 13-15 minutes.

The dissertation of David Gerhard Utzinger is approved.

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University of California, Los Angeles

2019

For my wife Kathryn,
daughter Ava,
and son Otto.

TABLE OF CONTENTS

List of Musical Examples	viii
List of Figures	ix
Acknowledgements	xv
Vita	xvi

Volume I

Chapter 1: Introduction, Biographical Sketches, Scope and Methodology	1
Chapter 2: Time and Memory in Marcel Proust's <i>À la recherche du temps perdu</i>	16
Chapter 3 Dutilleux's Compositional Techniques: Progressive Growth	29
Chapter 4: Processes of Progressive Growth in <i>Ainsi la nuit</i>	51
Chapter 5: Aesthetic and Technical Connections Between Proust and Dutilleux's Process of Progressive Growth	103
Chapter 6: Dutilleux's Compositional Techniques: Referential Devices	133
Chapter 7: Dutilleux's Compositional Techniques: Gray Areas	149
Conclusion	218

Volume II

<i>300,000 Starlings Swarm Over Denmark</i>	223
Bibliography	247

List of Musical Examples

Example 4.1 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Violin 1, mm 1-9).	52
Example 4.2 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, mm 1-9).	54-5
Example 4.3 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Violin 1, mm 1-3).	56
Example 4.4 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, mm 1-5).	57
Example 4.5 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Viola, Reh. 5).	59
Example 4.6 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Viola, Reh. 5-6).	60
Example 4.7 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Reh. 5-6).	62
Example 4.8 – Dutilleux: <i>Ainsi la nuit</i> (Miroir d'espace, Violin I, Reh. 1-2).	64
Example 4.9 – Dutilleux: <i>Ainsi la nuit</i> (Introduction, Reh. A-B).	72
Example 4.10 – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, Viola, Reh. 5).	73
Examples 4.11a-b – Dutilleux: <i>Ainsi la nuit</i> (Nocturne, mm 17-19 and mm 25-26).	74
Example 4.12 – Dutilleux: <i>Ainsi la nuit</i> (Parenthese 2, one before Reh. B).	76
Example 4.13 – Dutilleux: <i>Ainsi la nuit</i> (Temps suspendu, Violin II, mm 17-18).	76
Example 6.1 – Dutilleux: <i>Sur un même accord</i> (m 45 to end).	136
Example 7.1 – Dutilleux: <i>Ainsi la nuit</i> (Introduction, Reh. A-C).	153
Example 7.2 – Dutilleux: <i>Le Jeu des contraires</i> , (mm 1-8).	154
Example 7.3 – Dutilleux: <i>Ainsi la nuit</i> (Introduction, Reh. A-B).	169
Example 7.4 – Dutilleux: <i>Ainsi la nuit</i> (Litanies, Reh. 1-2, and Litanies Reh. 9).	170-1
Example 7.5 – Dutilleux: <i>Ainsi la nuit</i> (Parenthese 4, Reh. A, and Constellations, Reh. 1).	173
Example 7.6 – Dutilleux: <i>Ainsi la nuit</i> (Introduction, Reh. A-B).	181

List of Figures

Figure 3.1 – Debussy: <i>La Mer</i> , thematic transformation of the primary motif in the second movement, <i>Jeux de vagues</i> .	32
Figure 3.2 – Interval cycles commonly found in Dutilleux’s music.	36
Figure 3.3 – Dutilleux: <i>Ainsi la nuit</i> , opening chord expressed as genotype and phenotype.	39
Figure 3.4 – The creation of a pitch superstructure through transposition and inversion.	41
Figure 3.5 – Internal and external compound-rotation of objects and their constituent parts.	43
Figure 3.6 – Segmentation, recombination and horizontally adjacent placement create a new object.	44
Figure 3.7 – Use of common tones to shift between interval cycles.	45
Figure 3.8 – The transference of phenotypical parameters (i.e.: surface traits) between separate objects.	47
Figure 3.9 – The transformation of objects through the transference and transformation of phenotypical parameters.	50
Figure 4.1 – Arrangement of movements and Parentheses in <i>Ainsi la nuit</i> .	52
Figure 4.2 – Perspectives on the first violin’s underlying pitch structure in the opening measures of the Nocturne.	53
Figure 4.3 – Perspectives on the complete underlying pitch superstructure in the opening measures of the Nocturne.	56
Figure 4.4 – Stratification and unordered permutations of 2 Cycle trichords that appear in the opening measures of the Nocturne.	58
Figure 4.5 – Segmentation and recombination of pitch superstructure tetrachords.	59
Figure 4.6 – Analysis of the five statements of the viola’s musical object at Reh. 5 of the Nocturne.	61

Figure 4.7 – Different genotypes of the accompanimental objects found at Reh. 5-6 of the ‘Nocturne.’	61
Figure 4.8 – Genotypical “gray area” created by Dutilleux’s use of common tones to connect different interval cycles.	63
Figure 4.9 – Two genotypes that characterize the two sections of the first violin melody in ‘Miroir d’espace.’	65
Figure 4.10 – The horizontal pitch structure of the first violin melody in ‘Miroir d’espace’ resulting from the segmentation and recombination of different genotypes.	65-6
Figure 4.11 – The second violin’s and viola’s transformed music and underlying pitch structure in Temps suspendu (Reh. 26-27).	67
Figure 4.12 – Timbre one: Measured tremolo in Parenthese 2 (one before Reh. b).	68
Figure 4.13 – Timbre two: Coupling of unmeasured tremolo and <i>sul ponticello</i> bow placement in Litanies (one after Reh. 13).	69
Figure 4.14 – Timbre three: Ascending <i>modo ordinario</i> bowing and descending <i>pizzicato</i> in the Introduction (Reh. A-B), and in Temps suspendu (one before Reh. 26).	70
Figure 4.15 – Transference and convergence of previous timbres into a new single timbre in Temps suspendu (one before Reh. 26).	71
Figure 4.16 – Melodic contour one: “Palindrome-like” arch-contour.	72
Figure 4.17 – Melodic contour two: “Stepped” arch-contour.	73
Figure 4.18a-b – Melodic contour three: “Overlapping” ascending and descending contours, and Melodic contour four: “overlapping and “stepped” arch-contours.	74
Figure 4.19 – General scheme of ascending and descending contour patterns that occur throughout <i>Ainsi la nuit</i> .	75
Figure 4.20 – Melodic contour five: Reversed, “intervallically-expanded” and “stepped” arch-contour.	76
Figure 4.21 – Melodic contour six: Descendant of previous arch contour instantiations.	76

Figure 4.22 – Comparison of the second violin’s and viola’s phenotypes and expressed segments of the pitch superstructure in the Nocturne (one before Reh. 2) and in Temps suspendu (one before Reh. 26).	78-9
Figure 4.23 – Transformation of contours between the opening line of the Introduction and its reappearance in Temps suspendu.	79
Figure 4.24 – Initial appearance of the jeté object in <i>Ainsi la nuit</i> (Nocturne, Violin II, one before Reh. 2-3).	80
Figure 4.25 – Initial transformation of Jeté Objects A, B and C.	81
Figure 4.26 – Further transformations of the jeté object.	82
Figure 4.27 – Final transformations of the jeté object.	83
Figure 4.28 – Transformations of the initial articulation (attack) of Jeté Object C.	84
Figure 4.29 – Simultaneous application of structural and parametric processes of progressive growth in the Nocturne (Reh. 5-6).	85
Figure 4.30 – Statements and transformations of the Arpeggio Object with a final transformation into Jeté Object E.	86
Figure 4.31 – Simultaneous parametric transference from, and structural transformation of, Harmonic Object A (a) Cello, Nocturne, mm 1-3, b) Violin I and Violin II, Reh. 5).	87
Figure 4.32 – Antiphonal dialog, instantiation one (Nocturne, Violin I and Cello, mm 1-3).	88
Figure 4.33 – Antiphonal dialog, instantiation two (Nocturne, mm 10-11).	89
Figure 4.34 – Antiphonal dialog, instantiation three (Parenthese 1, two beats before Reh. B).	90
Figure 4.35 – Antiphonal dialog, instantiations four, five and six (a) Miroir d’espace, Reh. 1, b) Parenthese 3, Reh. A, c) Litanies 2, two before Reh. 7).	91
Figure 4.36 – Creation of multiply-directed time from three distinct “linear narratives.”	93
Figure 4.37 – Moment form as a series of discrete, unrelated and rearranged “moments.”	94

Figure 4.38 – The compound-rotation of three internally static moments resulting in the creation of three separate large-scale forms.	97
Figure 3.39 – Recursive or multi-level compound-rotation of moments, objects and individual elements.	98
Figure 4.40 – Application of multiply-directed time to two unique “phenotypical narratives.”	99
Figure 4.41 – Multi-level structural compound-rotation of moments and transfer of the green phenotype between those same moments.	100
Figure 5.1 – The first conceptual arch form, which is created by the titles of the movements in <i>Ainsi la nuit</i> .	104
Figure 5.2 – The second arch form in <i>Ainsi la nuit</i> .	105
Figure 5.3 – Multiple perspectives of the viola’s musical object that appears in the Nocturne at Reh. 5.	108
Figure 5.4 – Different perspectives of an object in <i>Ainsi la nuit</i> .	109
Figure 5.5 – Reiteration and expansion of a phrase-level object at Reh. 7 of the Nocturne.	113-4
Figure 5.6 – Expansion and transformation of an initially small-scale object.	115-6
Figure 6.1 – Large-scale structural note framework from Dutilleux’s <i>Deuxième Symphonie</i> .	138
Figure 6.2 – Comparison of axial melodies in Dutilleux’s <i>Métaboles</i> and Stravinsky’s <i>Le Sacre du printemps</i> .	140
Figure 6.3 – Three instantiations of the “nuit chord.”	143
Figure 6.4 – Three instantiations of the <i>Métaboles</i> “chordal theme.”	145-6
Figure 6.5 – The embedded 7 Cycle that connects the Nocturne to Constellations.	147
Figure 7.1 – Seventeen “view” of the “nuit chord.”	156
Figure 7.2 – Basic and anomalous perspectives of the “nuit chord.” Anomalous pitches are shown in red.	158

Figure 7.3 – Views of the <i>Sur un même accord</i> structural “pivot” chord in Sections 1-4 of that work.	160-1
Figure 7.4 – Underlying interval cycle and ten views of the <i>Sur un même accord</i> structural chord.	162
Figure 7.5 – “Original” version of the chordal theme in <i>Ainsi la nuit</i> .	168
Figure 7.6 – Visual representation of the different arrangements or “views” of the <i>Ainsi la nuit</i> chordal theme.	174
Figure 7.7 – a) Genotype from the Nocturne, <i>Ainsi la nuit</i> , b) genotype from <i>Sur un même accord</i> .	180
Figure 7.8 – Melodic contour one: “palindrome-like” arch-contour.	181
Figure 7.9 – The “large palindrome” that is created by the first violin and cello in the <i>Miroir d’espace</i> .	183
Figure 7.10 – The overlapping “small” and “large palindromes” in the <i>Miroir d’espace</i> .	184-5
Figure 7.11 – The introduction and “interruption” in the <i>Miroir d’espace</i> .	187
Figure 7.12 – The second violin’s and viola’s accompanimental objects in the <i>Miroir d’espace</i> .	188-9
Figure 7.13 – Side-by-side placement of the introduction and interruption in the <i>Miroir d’espace</i> .	191
Figure 7.14 – Formal diagram representing the different species of time in the <i>Miroir d’espace</i> .	192
Figure 7.15 – Past moments that are collected primarily from the <i>Miroir d’espace</i> and that appear as part of Parenthese 2.	196
Figure 7.16 – Prefiguration one: artificial harmonics in Parenthese 2 that prefigure the music of Litanies.	197
Figure 7.17 – Prefiguration two: combination of phenotypical parameters and mirror-writing in Parenthese 2 that prefigures related objects in Litanies.	199

Figure 7.18 – Prefiguration three: Grace note/Tremolo Object and “wave-like” object pairing that appears first in Parenthese 2 and later reemerges Litanies.	200
Figure 7.19 – “Past” instantiations of Chromatic Incipit Object A.	202
Figure 7.20 – “Future” instantiations of Chromatic Incipit Object A.	203
Figure 7.21 – Mosaic of past and future moments in Parenthese 2.	204-5
Figure 7.22 – Instances of the C#7/D#6 dyad as a fixed register, embedded pitch structure.	206
Figure 7.23 – Progressive growth in Parenthese 2: segmentation and recombination of the Chromatic Incipit Object and the C#7/D#6 dyad.	209

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Chapter 1

Introduction, Biographical Sketches, Scope and Methodology

At its core, this dissertation is an exploration of composer Henri Dutilleux's musical language, born out of my desire to understand the techniques and concepts that result in music I find remarkable. There are numerous paths one may choose to follow when looking to understand a composer's overall output. The analyst may choose to focus solely on the elements of a specific work—pitch content, motivic development and form, for example—or they may choose to look at historical and cultural context, at the era in which a work or body of works developed, or perhaps one could explore the influence of the composer's predecessors and contemporaries. Of course, the preceding list is incomplete, and any well-rounded analysis will follow, to some degree, all of the paths mentioned above (and more). Nevertheless, at some point it is important to focus the majority of one's attention on a single path. After all, you will never get to the end of the journey if you do not choose to move in one direction. To that end, I choose to wander down the last path mentioned—in other words, in order to better understand Dutilleux's music I choose to look at influence.

When we discuss a composer's influences we generally look to musical influences and often to the music of other composers. Less often, we look to important non-musical influences. In Dutilleux's case we can look to literary influences. Dutilleux counted among his literary influences authors Charles Baudelaire (1821 – 1867) and André Gide (1869 – 1951). However, the author that perhaps exerted the greatest influence on Dutilleux was Marcel Proust. This dissertation focuses on Proust's influence. Put simply, it explores the influence of Proust's narrative techniques on Dutilleux's approach to composition.

Marcel Proust (1871 – 1922)

Over the past century, Marcel Proust has come to be considered one of the most influential authors of the twentieth century.¹ Initially considered a talented amateur, he has since become known as “*the* author when it comes to treating the theme of time,” and his magnum opus, *À la recherche du temps perdu*, has been described as the “single work of art [that] has come to dominate the entire French literary scene of the twentieth century.”^{2, 3} Indeed, with that work, Proust is credited as an early developer of the interior landscape, turning to the mind of the protagonist, rather than the outside world, to provide the backdrop across which his narrative unfolds. Moreover, along with modernist authors James Joyce and Virginia Woolf, Proust is credited as one of the earliest “stream of consciousness” writers and *À la recherche du temps perdu* as one of the earliest examples of that narrative technique.⁴

Valentin Louis Georges Eugène Marcel Proust was born in Paris France two months after the end of the Franco-Prussian War. His father, Dr. Adrien Proust was a well-regarded pathologist and epidemiologist, and his mother Jeanne Weil was the daughter of a wealthy

¹ For example, a 2007 survey called *The Top Ten: Writer's Pick Their Favorite Books* ranked *À la recherche du temps perdu* as the third most influential book of the twentieth century after Vladimir Nabokov's *Lolita* and F. Scott Fitzgerald's *The Great Gatsby* (placed first and second, respectively).

² Richard Bales, “Introduction,” in *The Cambridge Companion to Proust*, ed. Richard Bales (Cambridge, UK: Cambridge University Press, 2001), 1.

³ Richard Bales, “Preface,” in *The Cambridge Companion to Proust*, ed. Richard Bales (Cambridge, UK: Cambridge University Press, 2001), xiv.

⁴ In a 1934 letter to the publisher Sylvia Beach, early stream of consciousness author Dorothy Richardson commented that several authors, including Proust, were all using the same technique simultaneously, though in very different ways. Cited in: Dorothy Richardson, *Windows of Modernism: Selected Letters of Dorothy Richardson*, ed. Gloria G. Fromm (Athens, GA: University of Georgia Press, 1995), 282.

Parisian family. Proust's interest in writing seems to have begun when he was a teenager.⁵ Throughout his twenties and early thirties, Proust produced several short stories that were published in the volume *Les Plaisirs et les jours* (1896), completed a well-received French translation of John Ruskin's *The Bible of Amiens* (1904), and began his first novel, which would be posthumously published under the title *Jean Santeuil* in 1952. However, it would be his final work that would secure his place in the twentieth century literary canon.

Begun in 1908, *À la recherche du temps perdu*, or *In Search of Lost Time* (sometimes referred to as *Remembrance of Things Past*), is a seven-volume work that was left incomplete at the time of Proust's death.^{6, 7, 8} Stretching across more than 3,000 pages, *À la recherche du temps perdu* became the work in which many of the narrative techniques that Proust had been developing in earlier works took shape into a clear and unique narrative style. As such, it is the work that defines Proust as "the author" and is generally the primary focus of Proust literary scholarship, as is the case with this dissertation.

⁵ William C. Carter, "The vast structure of recollection: from life to literature," in *The Cambridge Companion to Proust*, ed. Richard Bales (Cambridge, UK: Cambridge University Press, 2001), 28.

⁶ In his original translation of Proust's novel (1922-1930), Charles Kenneth Scott Moncrieff decided to use a bit of poetic license when titling the work, borrowing this line from Shakespeare's Sonnet 30: "When to the sessions of sweet silent thought / I summon up **remembrance of things past**." In 1992, Dennis Joseph Enright produced a new translation, and with it, a faithful interpretation of Proust's original title, which could be translated literally (that is, word for word) as *In Search of Time Lost* or *In Search of Time Wasted*.

⁷ The seven volumes of *À la recherche du temps perdu* are as follows: Volume I - *Du côté de chez Swann* (*Swann's Way*), Volume II - *A l'ombre des jeunes filles en fleurs* (*Within a Budding Grove*), Volume III - *Le Côté de Guermantes* (*The Guermantes Way*), Volume IV - *Sodome et Gomorrhe* (*Sodom and Gomorrah*), Volume V - *La Prisonnière* (*The Prisoner*), Volume VI - *Albertine disparue* or *La Fugitive* (*The Fugitive*), Volume VII - *Le Temps Retrouvé* (*Time Regained*).

⁸ To clarify, Proust died before he could proof and revise drafts of the final three volumes, which were published posthumously by his brother Robert Proust.

Henri Dutilleux (1916 – 2013)

Henri Dutilleux has become widely recognized as one of the most influential and important French composers of the latter half of the twentieth century. The list of internationally renowned musicians that championed Dutilleux's work included the conductors George Szell, Charles Münch and Seiji Ozawa, and performers like violinist Isaac Stern and cellist Mstislav Rostropovich.⁹ During his lifetime Dutilleux received numerous awards for his work, which included the French *Grand Prix National de Musique* (1967), the Japanese *Præmium Imperiale* (1994), The *Prix MIDEM Classique de Cannes* (1999 and 2007), a Gold Medal of the Royal Philharmonic Society (2008) and the New York Philharmonic's Marie-Josée Kravis Prize for New Music (2012). Dutilleux was made a Commander of the Order of Saint-Charles in Monaco in 1998, and perhaps most notably, was one of only four musicians to receive the *Grand-Croix de la Légion d'honneur* (the other three being Gabriel Fauré, Camille Saint-Saëns and Olivier Messiaen).

Dutilleux's music could be described stylistically as an extension of the French tradition rather than a break from it. He continued, even extended, the use of modes that is associated with Debussy, Ravel and Messiaen. Moreover he rejected the doctrine of the European avant-garde as well as integral serialism, viewing both as stifling creativity. In one interview, he recalled "[sitting] on juries for the ISCM Festival, in Prague, London and Stockholm, at various times during the height of serialism. We had to choose the scores that would be played at future festivals, that is around a hundred scores each year. And there would be sixty, written according to serialist principles, all of which would have sounded

⁹ Mstislav Rostropovich commissioned both Dutilleux's 1970 cello concerto *Tout un monde lointain...* and his orchestral work *Timbres, espace, mouvement* (1978). Isaac Stern commissioned his 1985 violin concerto *L'arbre des songes*. Additional notable commissions include the string quartet *Ainsi la nuit* (1977), commissioned by the Juilliard String Quartet, *Sur le même accord* (2002), commissioned by violinist Anne Sophie Mutter, and *Le temps l'horloge* (2007), commissioned by soprano Renee Fleming.

the same!"¹⁰ Dutilleux also viewed the abolition of hierarchy, a concept closely tied to integral serialism, as antithetical to his own approach to composition, saying in an interview with Pierrette Mari in 1988, "As far as this system [serialism] is concerned, I have honestly never been able to accept the abolition of hierarchy (in the ordering of the degrees of the chromatic scale) which is its fundamental principle[...] By natural inclination I cannot deprive myself of the idea of polarity in music."¹¹ Of Pierre Boulez and his dogmatic insistence on serialism Dutilleux said, "He has made his choices and he has the right to make his choices. But there are certain things I cannot accept, and I don't like people who are never in doubt."¹² Nevertheless, Dutilleux's music shared, even with Boulez, many of the characteristics associated with French music of the late nineteenth and twentieth centuries—a focus on texture, timbre, and gesture.

With a few notable exceptions, like his string quartet *Ainsi la nuit* and his solo cello work *Trois strophes sur le nom de Sacher*, Dutilleux's primary focus was on large multi-movement works for the orchestra. Dutilleux was a notoriously slow composer and his output was relatively small, his total number of original works at the time of his death numbering thirty-seven. In large part, this has to do with the fact that Dutilleux's works are incredibly detailed and refined—he would rework a piece over and over, and then continue to revise it long after it had been premiered and published.¹³ Writing for the British

¹⁰ Henri Dutilleux and Claude Glayman, *Music – Mystery and Memory*, trans. Roger Nichols (Burlington, VT: Ashgate Publishing Company, 2003), 39.

¹¹ Pierrette Mari, *Henri Dutilleux* (Paris: Zurfluh, 1988), 100. Translation of quote by Caroline Potter.

¹² Stuart Jefferies, "The Perfectionist," *The Gaurdian* [on-line], <https://theguardian.com/lifeandstyle/2002/apr/19/shopping.artsfeatures1> (accessed January, 15, 2019).

¹³ For an example of his revisionist tendencies, we can look to Dutilleux's orchestral work *Timbres, espace, mouvement*, which was completed and premiered in 1978, but revised years later, in 1990, to include an additional middle movement.

newspaper The Guardian at the time of Dutilleux's death in 2013, music journalist Tom Service had this to say about the legacy of Dutilleux's small but impressive catalog of work:

The influence of Dutilleux's music on the 20th and 21st centuries isn't to be measured in how his work revolutionised the languages of musical possibility, or even in the roster of his pupils (who included Gérard Grisey). Instead, his music is a realisation of a complete world, independent of concerns for cutting-edge contemporaneity, and one that becomes more essential the more you hear it, above all for how he transforms his astonishing compositional refinement into real emotional immediacy.¹⁴

Early Years

Henri Paul Julien Dutilleux was born six years before the death of Proust, and so their lives cannot be said to have overlapped in any meaningful way. Dutilleux came from an artistic family. His paternal great-grandfather was the painter and lithographer Henri-Joseph-Constant Dutilleux, perhaps best known as part of the circle of painters known as the École de Barbizon, which included Eugène Delacroix and Camille Corot. Dutilleux's maternal grandfather, Julien Koszul, was the director of the Roubaix Conservatoire and studied music alongside Gabriel Fauré at the École Niedermeyer de Paris. Dutilleux's father, Paul Dutilleux, was also a lithographer, and along with Dutilleux's mother, Thérèse Koszul, was an amateur musician.

¹⁴ Tom Service, "A Guide to Henri Dutilleux's Music," The Guardian [on-line], <https://theguardian.com/music/tomserviceblog/2013/jan/21/henri-dutilleux-contemporary-music-guide> (accessed January 16, 2019).

Dutilleux, who showed a marked interest in music from a young age, enrolled in the Conservatoire at Douai on the advice of his grandfather Julien in 1924.¹⁵ In 1933 he enrolled in the Paris Conservatoire, winning the *Prix de Rome* in 1938 with the cantata *L'anneau du roi*.¹⁶ Unfortunately, the outbreak of World War II prevented Dutilleux from spending the next four years composing at the Villa Medici. Instead, with the beginning of the war in 1939, Dutilleux returned home and became a stretcher-bearer until his demobilization in 1940.¹⁷

Despite the war, throughout the 1940s Dutilleux continued to compose and worked for Radio France, writing incidental music for several radio plays. Following the end of World War II, he composed several scores for the theatre and several scores for film, and in 1947 he composed his *Piano Sonata* for his new wife, Geneviève Joy, the work that he would later consider to be his Opus 1.¹⁸

Mature Works

It has been pointed out that the transitions between Dutilleux's different stylistic periods have been remarkably smooth.¹⁹ Nevertheless, it is possible to view Dutilleux's output between the late 1940s and the final decades of the twentieth century as developing in three phases. The first phase begins with the late 1940s and runs through the 1950s. In

¹⁵ Dutilleux's interest in composition was so keen that he is said to have received a copy of the score to Claude Debussy's *Pelléas et Mélisande* for his twelfth birthday.

¹⁶ Caroline Potter, *Henri Dutilleux: His Life and Works* (Burlington, VT: Ashgate, 1997), 4.

¹⁷ *Ibid.*, 4.

¹⁸ Theatre works from this period include *Les hauts de Hurlevent* (1944-45) and *La princesse d'Elide* (1946). Film scores from this period include *La fille du diable* (1945-46), directed by Henri Decoin, and *Le café du Cadran* (1946), directed by Jean Gehret.

¹⁹ Jeremy Thurlow, "The Music of Henri Dutilleux: A Critical Survey of the Major Works," Dissertation, King's College, University of London, 1998, 7.

this phase Dutilleux's music could be described as leaning toward neoclassicism, relying on the formal language of the past and containing traces of triadic diatonic harmony, though remaining primarily modal. Works in Dutilleux's first phase of development include the previously mentioned *Piano Sonata*, the *Première Symphonie* (1950-51), and the *Deuxième Symphonie "Le Double"* (1955-59). A movement away from traditional forms and toward a more complex formal language marked Dutilleux's second phase, which corresponds roughly with the 1960s and 70s. In this phase, Dutilleux's harmonic language became more dissonant, and began to move beyond traditional modes and the octatonic scale, and into interval cycles. Major representative works from the second phase include the orchestral work *Métaboles* (1959-64), the cello concerto *Tout un monde lointain...* (1967-70), the string quartet *Ainsi la nuit* (1973-76) and the orchestral work *Timbres, espace mouvement ou La nuit étoillée* (1976-78). Dutilleux's pitch language was well established in his third phase, which covers the 1980s and 90s, and so this phase is instead characterized not by horizontal or vertical advances, but rather by a return to musical ideas from the past and a movement toward less common instrumentation. Representative works from this phase include the violin concerto *L'arbre des songes* (1979-85), *Mystère de l'instant* for twenty-four strings, cimbalom and percussion (1985-89), *Diptyque: Les Citations* for oboe, double bass and percussion (1990-91) and *The Shadows of Time* for orchestra and children's voices (1997).²⁰

Later Years

Dutilleux continued to compose well into his nineties. The first decade of the twenty-first century saw Dutilleux produce his final major instrumental work, the nocturne

²⁰ In 2010, Dutilleux added a third movement to *Les Citations*.

for violin and orchestra *Sur le même accord* (2002), and move into a new genre: the song cycle. The first of these was *Correspondences* (2003), written for soprano and orchestra, the second, which was also his final work, was the song cycle *Le temps l'horloge* (2006-09), for soprano and orchestra.

The Influence of Proust

Dutilleux's *Première Symphonie* is particularly notable not only because it is the first work that could be considered a masterpiece, but also because it is the first work in which we begin to see connections to Proust and his concepts regarding time and memory.²¹ Primarily, these connections come in the form of an idiosyncratic metamorphic process that Dutilleux referred to as **progressive growth**, a process that the composer himself viewed as beginning with the *Première Symphonie*, though he claimed in an interview with Roger Nichols, that he was not immediately aware of the process and only later began to exploit it.^{22, 23, 24} Perhaps most importantly, in that same interview Dutilleux connected the use of progressive growth to the influence of Proust, saying:

This may perhaps show the influence of literature, of Proust and his notions about memory. It's a difficult thing to explain, but it's important because it's

²¹ Potter, 9.

²² Henri Dutilleux and Roger Nichols, "Progressive Growth. Henri Dutilleux in Conversation with Roger Nichols," *The Musical Times* 135, 1812 (February 1994): 89.

²³ Francis Bayer, composer, musicologist and former pupil of Dutilleux is responsible for the term progressive growth (in French, *croissance progressive*), a term that Dutilleux readily adopted.

²⁴ Interestingly, Caroline Potter has noted that the first two movements of the *Première Symphonie* are far more conservative than the final two movements. She speculates that Dutilleux's conscious use of progressive growth actually begins with the third and fourth movements of that work.

central to my [compositional] preoccupations from [the *Première Symphonie*] onward.²⁵

Numerous articles have noted the influence of Proust on Dutilleux's process of progressive growth.²⁶ However, I have found that there is a lack of scholarship on specifically how Proust influences Dutilleux—in other words, many acknowledge this influence, but few discuss it in detail, generally giving Proust's influence only a few lines of text.

Perhaps the two most in-depth and revealing examinations of Proust's influence can be found in Caroline Potter's 1997 book *Henri Dutilleux*, and in Kenneth Hesketh's 2010 article "The Backbone of the Night: Mechanisms of Evolution in Henri Dutilleux's *Ainsi la nuit*." In Caroline Potter's book, which devotes roughly twenty pages to the influence of Proust on Dutilleux's compositional process, the author does point to a few specific connections—namely, that Proust's concept of multiplicity influences Dutilleux's treatment of material that could be described as motivic—and she correctly identifies that Proust's unique approach to time and memory influences Dutilleux's approach to those phenomena, but again, while the concepts are described, Potter does not address how Proust's approach to time and memory *specifically* manifests in Dutilleux's music or in his process of progressive growth. Kenneth Hesketh's article, on the other hand, is very specific. It focuses on memory, using cognitive psychology to connect some of Dutilleux's techniques to

²⁵ Dutilleux and Nichols, "Progressive Growth," 89.

²⁶ One such example can be found in the New Grove Dictionary of Music and Musicians, which does not go much deeper into the influence of Proust than "The multiple plays on time in Dutilleux's music reveal the influence of Proust's concept of memory, which embraces anticipation and variation as well as the straightforward recollection of material."

Proust's, appropriately identifying the phenomenon of association as a principle link between the composer and the author. However, an act of remembering clearly affects the perception of time—in other words, memory and time are interconnected phenomena—and Hesketh's article almost completely ignores the phenomenon of time and the ways Proust's approach to that phenomenon influences Dutilleux.²⁷

How then does Proust's approach to time and memory influence Dutilleux's music in the broadest possible sense? Indeed, the clearest direction in this regard may come from Dutilleux himself. In response to a question from Claude Glayman regarding the influence of Proust on his distinctive approach to composition, Dutilleux replied, "It's true I often think of the link between [Proust's] manner of construction and my own objectives in organizing musical time, if it is not too risky to compare the two different domains, the literary and the musical."²⁸

In point of fact, Dutilleux's comparison of the two genres, with regard to concepts of "construction" and "organizing musical time" is entirely *a propos*. In literature, as in music, the interrelationship between "dynamic characters" and "static events" exists as elements within a specific "time-space" or "temporal architecture." The sequencing of these events within determined temporal boundaries is considered a defining feature of narrative by many theorists, and as an applied concept, is tied to issues of form in both literary and musical domains.²⁹ From a narrative standpoint, an author's formal "language" could be

²⁷ At times, Hesketh does imply that Dutilleux is a linear composer. While I agree that at times Dutilleux does *lean* toward linearity, I argue in Chapter 4 that Dutilleux's formal types reside on a spectrum that is primarily non-linear.

²⁸ Dutilleux and Glayman, *Music – Mystery and Memory*, 53.

²⁹ Theorists that have written extensively about narrative sequence include: Jerome Bruner (*The narrative construction of reality*, 1991), Paul Ricoeur (*Time and narrative*, 1984) and Catherine Reissman (*Analysis of Personal Narratives*, 2002).

described as the unique way in which they choose to manipulate and present—that is “organize”—the sequence of events within a narrative time-space.³⁰

Appropriately, we find that Proust’s influence on Dutilleux was formal, or rather, Dutilleux’s formal language—the interrelationships that he created between his “musical objects” and his “sound events,” and the unique manner in which he tended to organize the sequence of “sound events” within the temporal boundaries of the work—was profoundly influenced by Proust’s own formal language, which in large part, revolved around the interconnected phenomena of time and memory.

Scope and Methodology

The perception of time and the activation of the listener’s (or reader’s) memory end up being important elements in this dissertation. As noted above, with regard to these phenomena, Proust’s influence on Dutilleux has often been discussed in the broadest conceptual terms. However, this dissertation attempts to look not only to the broadly conceptual, but also to specifics. In other words, what are the specific temporal and associative techniques that Proust used to create his unique narrative language, what are the specific formal and metamorphic techniques that Dutilleux used to create his process of progressive growth, and how precisely do Proust’s techniques influence Dutilleux’s techniques. In order to better understand this relationship, this dissertation looks first at each language separately, and then brings them together in a side-by-side comparison.

Chapter 2 focuses solely on Proust, looking first at how temporal linearity is manipulated in order to create a specific formal effect, then at how memory is used to build

³⁰ Olga Sutherland, Andrea V. Breen and Stephen P. Lewis, “Discursive Narrative Analysis: A Study of Online Autobiographical Accounts of Self-Injury,” *The Qualitative Report* 18, 95 (2013): 2.

associations across *À la recherche du temps perdu*, and finally at the interaction of time and memory in that same novel.

Along with the lack of scholarship into what specifically connects Proust and Dutilleux, I have also noticed a lack of scholarship when it comes to understanding what exactly Dutilleux means when he describes a “process of progressive growth”—in other words, which techniques specifically make progressive growth unique and what differentiates it from other transformative or metamorphic processes. Chapter 3 then focuses on Dutilleux’s process of progressive growth, comparing it first to its predecessors (think thematic transformation) and then describing *specific techniques* that make it unique.

Chapter 4 continues the investigation of the processes of progressive growth by providing a series of examples for each of the techniques presented in Chapter 3. All of the examples are drawn from Dutilleux’s string quartet *Ainsi la nuit*, the work that Dutilleux generally mentioned when discussing the influence of Proust. Chapter 4 ends with a discussion of Dutilleux’s approach to form and time in *Ainsi la nuit*, an approach that while specific to that work can be generally applied to his overall *oeuvre*.

Chapter 5 brings together the narrative/formal techniques of Proust and Dutilleux, comparing first their respective approaches to temporal linearity—that is, chronology—and then their respective approaches to memory. In the second half of Chapter 5, which focuses on memory and the phenomenon of association, I build off of Hesketh’s use of cognitive psychology and well-established theories on association, extending his ideas in order to demonstrate how Proust and Dutilleux both work to consciously trigger the

memories of their respective audiences, and how their individual techniques, in turn, connect.

While the majority of Dutilleux's music is comprised of a continuous series of dynamic metamorphoses, there are in fact moments of stasis in each work—sections, sound events, or musical objects that repeat earlier music in a nearly exact manner. These sound events and musical objects have become known as Dutilleux's **referential devices**.³¹ The characteristics of several different types of referential device, and the contrast they provide to the processes of progressive growth, are the focus of Chapter 6.

The final chapter, Chapter 7, then looks at “gray areas”—music that does not fit neatly into either the progressive growth category or the referential device category. As much of Dutilleux's music falls into a gray area, exhibiting both characteristics of dynamic progressive growth and the static referential device, this chapter becomes particularly important. Each of these gray areas is then connected to narrative techniques that were employed by Proust, and which were explored in previous chapters. Finally, Chapter 7 concludes with a deep look at a unique gray area—a short movement that Dutilleux referred to as the “Parenthese”—and the ways in which this type of structure connects to one of Proust's most famous narrative devices—the *moments bienheureux*.



Looking to any influence would very likely be illuminating when attempting to understand a composer's unique musical language. With regard to Dutilleux, studying the

³¹ Caroline Potter, author of the above-mentioned book *Henri Dutilleux*, coined the term referential devices.

influence of the composers Debussy, Stravinsky, Bartok and Messiaen would also be illuminating, but would also focus more on pitch content and specifically-musical concerns. In understanding the influence of Proust on Dutilleux's musical language, I am hoping for a broader understanding, one that bridges art forms and addresses not only individual aspects of Dutilleux's compositional language, but also his overall aesthetic.

Chapter 2

Time and Memory in Marcel Proust's *À la recherche du temps perdu*

Issues of time and memory pervade all levels of Proust's monumental work, *À la recherche du temps perdu*, providing both large and small-scale structure while serving to bind the seven-volume work into a cohesive whole. Although it has been suggested by many scholars that ultimately, the novel is "not primarily about memory and sentiments concerning the past," time and memory are the twin media through which the protagonist of the novel, Marcel, eventually reaches his unconscious goal: the realization of "self."^{1, 2}

Chronology as a Large-scale Structural Element

When discussing the phenomenon of time in Proust's work, questions of chronology invariably arise. Proust is well known for his complex approach to narrative sequence, an approach that is often blamed for the "chronological confusion" and "overwhelming atmosphere of uncertainty" that greets those who are reading the *Search* for the first time.³ Nevertheless, chronologic intelligibility acts as an overarching large-scale structural principle.⁴

¹ Roger Shattuck, *Proust's Way: A Field Guide to In Search of Lost Time* (New York: W. W. Norton & Company, 2000), xv-xvi.

² Paul Ricoeur, *Time and Narrative*, vol. 2, trans. Kathleen McLaughlin and David Pellaur (Chicago, IL: University of Chicago Press, 1985), 130-131.

³ Joshua Landy, "The Texture of Proust's Novel," in *The Cambridge Companion to Proust*, ed. Richard Bales (Cambridge, UK: Cambridge University Press, 2001), 117.

⁴ Shattuck, *Proust's Way*, 119.

According to Roger Shattuck, the shape of the novel traces varying degrees of chronologic clarity across its 3,000 or so pages. Following a largely atemporal, fifty-page introduction, the bulk of the first volume, *Swann's Way* "observe[s] a reasonably clear chronological sequence. Temporal gaps are specified and allusions are made to past and future developments with a feeling of temporal and logical continuity."⁵ However, temporal specificity does not last forever, and by the middle of the second volume, *In the Shadow of Young Girls in Flower*, chronologic focus begins to blur, becoming "increasingly undefined and ambiguous" through the middle, and toward the concluding portions of the novel.⁶ It is not until the final volume of the work, *Time Regained*, that chronology again becomes clearly delineated and references to events located at specified points in time return.⁷

Chronology as a Small-scale Structural Element

Large-scale form and temporal continuity are of course not perceivable upon a first reading, and the structural arch-form that is created by the aforementioned juxtaposition, which bookends "undefined and ambiguous" chronology with "clear chronological sequence," rests in large part on the level of clarity with which individual events in the *Search* refer to a logically structured chronology that exists *outside* of the novel. However, the narrative sequence that one encounters at the "local level" while reading the novel is not necessarily linear. Put another way, the events of the Narrator's life as presented *inside* the narrative are often treated not as a continuous stream of happenings, but rather as delimited units on an initially linear timeline that can be rearranged.

⁵ Shattuck, *Proust's Way*, 119.

⁶ Ibid., 119.

⁷ Ibid., 120.

The structural density that results from Proust's complex approach to narrative sequence is often compounded by the way the Narrator presents each temporal segment. The description of a single event "often turns out to be a description of a repeated state of affairs."⁸ Conversely, periods of the Narrator's life that are presented as separate events frequently overlap or exist within the same time-space.⁹ When events do appear in chronological order, huge intervals of time frequently exist between each event, and when large expanses of time are addressed, they often receive a scant few lines while events that take place over the course of hours can occupy hundreds of pages.¹⁰

Additionally, a character or an event in the *Search* is often introduced in a fleeting manner and at an early stage in the narrative, only to reappear—now an important element—hundreds of pages later. Important aspects of the character's lives are frequently omitted in the novel's opening chapters, but referred to later, often making their "original occurrence...impossible to date," while "others, inversely, [Proust] reveals ahead of time, only to withhold them from us when the appropriate moment arrives."¹¹ Even a narrative element as important as the *moments bienheureux*, which result from an episode of involuntary memory, are introduced in this fashion, first appearing to be "another happenstance in a long series...[of] heightened events in a chain of widely separated happening[s]."¹² The importance of the *moments bienheureux*, which first appear in *Swann's Way* with the madeleine episode, does not emerge until the end of the last volume, *Time*

⁸ Landy, 119.

⁹ Ibid., 118.

¹⁰ Ibid., 119.

¹¹ Ibid., 118.

¹² Ann Tukey, "Notes on Involuntary Memory in Proust," *The French Review* 42, 3 (February 1969): 401.

Regained. As a result, the reader “cannot determine in advance which incidents are going to prove important in the long run.”¹³

Compounding that small-scale narrative confusion are Proust’s famously expansive multi-clause sentences, recursively “coiling and uncoiling” across hundreds of words, and placing before the reader a multitude of digressions, and often-contradictory images, perspectives and observations.^{14, 15}

Given the amount of temporal reordering that is applied to the narrative sequence across both large and small structural levels, and the complex ways in which those levels often interact with each other and the external backdrop of linear clock-time, it is easy to understand why readers often become lost in Proust’s world, and why upon an initial reading, many (including some of Proust’s earliest critics) would consider the complex nature of his formal language a stylistic weakness.¹⁶ However, it has been pointed out that the “various idiosyncrasies of Proust’s style...find their justification as the reflection of...a particular vision of existence. Specifically, they map or model the structure of the self as Proust sees it, namely as an entity divided not only from the outside world (other minds included) but also from within, into discrete temporal segments which each contain, in turn, a plurality of faculties and drives.”¹⁷ This distinctive approach to narrative sequence,

¹³ Landy, 119.

¹⁴ Shattuck, *Proust’s Way*, xviii.

¹⁵ Roger Shattuck, *Proust’s Binoculars* (New Jersey: Princeton University Press, 1983), 23.

¹⁶ One early critic of Proust’s formal and syntactical style, poet and playwright Jacques Normand, commented that, “one can set down as a positive fact that there will never be a reader hardy enough to follow along for as much as a quarter of an hour,...[a]fter the seven hundred and twelve manuscript pages, after infinite amounts of misery at being drowned in a sea of inscrutable developments,...one has no notion, none, of what it’s all about.”

¹⁷ Landy, 117.

and the resulting formal complexity that it generates, turns out to be one of the novel's great strengths and one of the reasons that *In Search of Lost Time* has been considered one of the twentieth-century's most innovative novels—namely, the form of the novel mirrors the Narrator's subjective interior world, a world of duality and multiplicity.

Multiplicity

Multiple images, multiple observations, indeed multiplicity in general, was of utmost importance to Proust's conception of reality, and consequently his formal language. For a writer to truly understand the nature of reality, to appropriately grasp and accurately capture the nature of the people, places and events that passed through the fabric of their existence, Proust believed each entity should be viewed from a multitude of perspectives, both physical and temporal, that like "the painter, the writer, in order to achieve volume and substance, in order to attain generality and, so far as literature can, to reality, needs to have seen many churches in order to paint one church and for the portrayal of a single sentiment requires many individuals."¹⁸ Accordingly, human personality was also viewed as multiple, "a succession of discrete moments," each revealing a "single aspect...a single photograph,"¹⁹ the subsequent composite allowing a four-dimensional presentation of character to emerge, a composite predicated on the principle that, more than any other phenomena, time and memory are experienced as multiple.

¹⁸ Marcel Proust, *In Search of Lost Time—Time Regained*, trans. Andreas Mayor and Terence Kilmartin (New York, NY: Random House, 1993), 316-317.

¹⁹ Cited in Potter, 68. Translation by Caroline Potter.

Memory as Multiple

Proust's stylistic leanings developed in an era that saw Einstein create his theory of special relativity, and Braque and Picasso the multi-perspectival approach to visual art known as cubism. Proust's "treatment of memory as always multiple," a treatment that "implies a relativity concept in consciousness itself," rested on the idea that:

...to see anything in temporal depth, we need at least two impressions of it...merely to remember something is meaningless unless the remembered image is combined with a moment in the present affording a view of the same object or objects...those two images then converge in our minds into a single heightened reality.^{20, 21}

This principle of "memory as always multiple" helps explain Proust's tendencies toward chronologically-jumbled narratives; by juxtaposing, in no particular order, temporally disjunct and discrete events, by placing isolated memories alongside a present which connect only in the Narrator's mind through association, Proust created a four-dimensional perspective—a perspective that, by increasing temporal *volume*, amplified his ability to evoke a particular emotion or expand upon a particular thought. Events, "separated in time but connected through their emotional significance for the Narrator,

²⁰ Shattuck, *Proust's Binoculars*, 44.

²¹ *Ibid.*, 46-47.

fuse to form a single homogeneous memory.”²² “Multiplicity,” as Shattuck explains, “now brings not confusion, but dimensionality and depth.”²³

Association, Metaphor and Involuntary Memory

In order to reconcile the inherent duality and multiplicity that resulted from the volume of memories, temporalities and perspectives required by his narrative style, Proust relied upon a principle of association, and approached it in two different ways: through an extensive use of metaphor, and through the phenomenon of *involuntary memory*.

Metaphor

Metaphor has been described as the “the action that comes to dominate the *Search*.”²⁴ Proust’s use of metaphor weaves in and out of the *Search* like an unbroken thread, a structural constant that exists on all levels of the novel, often acting as an axis for the senses, a reference point around which unrelated ideas and phenomena revolve.^{25, 26} It was the way Proust resolved the contradictions that naturally arose in a narrative language that relied on multitudes, and the primary associative technique through which he connected and combined disparate and multiple narrative elements and events into a

²² Brian G. Rogers, *Proust’s Narrative Techniques* (Geneva, Switzerland: Librairie Droz, 1965), 160.

²³ Shattuck, *Proust’s Binoculars*, 47.

²⁴ Shattuck, *Proust’s Way*, 164.

²⁵ *Ibid.*, 164.

²⁶ Shattuck, *Proust’s Binoculars*, 10-20.

composite element or concept.²⁷ Toward the end of the final volume, *Time Regained*, Proust wrote of the duc de Guermantes that he tottered,

...upon the almost unmanageable summit of his eighty-three years, as though men spend their lives perched upon living stilts which never cease to grow until sometimes they become taller than church steeples, making it in the end both difficult and perilous for them to walk and raising them to an eminence from which suddenly they fall. And I was terrified by the thought that the stilts beneath my own feet might already have reached that height.²⁸

In this quote, Proust is not merely conveying through the use of metaphor the Narrator's feeling of impending mortality (a feeling triggered by the sight of the frail and aging duc de Guermantes); he is creating a conceptual composite, the stilts representing "not only the precariousness of [an old man's] life and the awkwardness of his movements but also the perspective of his mind, the lofty vantage point from which he views the world," a viewpoint that results from an accumulation of years and experiences.²⁹

Proust also viewed metaphor as a means through which one may uncover the underlying sensory relationship that will focus the lens of understanding upon, and reveal the ultimate significance of, temporally disjunct experiences. "[T]ruth," Proust wrote, "can

²⁷ Shattuck, *Proust's Way*, 164.

²⁸ Proust, *In Search of Lost Time—Time Regained*, 531.

²⁹ Shattuck, *Proust's Way*, 100.

be attained by us only when, by comparing a quality common to two sensations, we succeed in extracting their common essence and in reuniting them to each other, liberated from the contingencies of time, in a metaphor.”³⁰ Proust’s use of optical metaphors in particular, has been widely studied, in part because of the way in which he relied on them to illustrate his view of time as multiple.³¹ For example, in *Time Regained* Proust wrote that “...Time which by habit is made invisible and to become visible seeks bodies, which, wherever it finds them, it seizes upon, to display its magic lantern upon them...[thus], the new, the unrecognisable Argencourt was there before me as the revelation of Time, which by his agency was rendered partially visible.”³² Here, the visual metaphor of a magic lantern used by Time (now as a character in the novel) to project the Narrator’s previous memory of a younger M. d’Argencourt upon the face of the current version of the man, is used to describe the Narrator’s impression (and shock) upon seeing someone he had previously known, now suddenly old.³³ And again, a composite is created with metaphor, in this instance not from separate elements or concepts, but from separate moments in time.

In one of his last letters, Proust used the image of a telescope to further describe this particular approach to the concept of time in the *Search*:

The image (imperfect as it is) which seems to me best suited to convey the nature of that special sense is that of the telescope, a telescope pointed at

³⁰ Proust, *In Search of Lost Time—Time Regained*, 290.

³¹ Roger Shattuck devoted much of his life to discussing optical imagery in *In Search of Lost Time*, and while he wrote several books that discuss Proust and his famous novel, it is his book “Proust’s Binoculars” that provided the first in depth analysis of Proust’s extensive use of optical imagery and optical metaphors.

³² Proust, *In Search of Lost Time—Time Regained*, 342.

³³ A magic lantern is more commonly known today as a slide projector.

time, for a telescope renders visible for us stars invisible to the naked eye, and I have tried to render visible to the consciousness unconscious phenomena, some of which, having been entirely forgotten, are situated in the past.³⁴

The telescope creates a perceptual foreshortening between near and far, excising the distance between two objects; likewise Proust often sought, through another of his favorite optical metaphors—the stereoscope—to excise temporal distance, to place past and present moments, not on top of one another, but side by side, to “set them up temporally equidistant in Time.”³⁵

Involuntary Memory and the *Moments Bienheureux*

If metaphor is the narrative technique that dominates the *Search*, the aforementioned thread that constantly works to stitch together the narrative patchwork of the novel, then Proust’s *moments bienheureux* (pleasurable moments) exist as structural poles, firmly planted at either end of the novel, reinforcing its large-scale chronological structure, and creating deformations or distortions in narrative space-time that attract and assemble past, present and future onto “a uniform plane,” affording the Narrator, through the phenomenon of involuntary memory, a moment of existential clarity.^{36, 37}

³⁴ Cited in Shattuck, *Proust’s Binoculars*, 46.

³⁵ Shattuck, *Proust’s Binoculars*, 48.

³⁶ Shattuck, *Proust’s Way*, 263.

³⁷ Shattuck, *Proust’s Binoculars*, 48.

Involuntary memories appear to the mind, as the terminology suggests, “independent of our will,” dependent upon the phenomenon of association, and the concept that a similarity, perceived between two events—one past, one present—can, like the pebble that detaches from the mountainside, activate a spontaneous avalanche of adjoining and connected memories, bringing not only memories, but entire past experiences vividly into the present.^{38, 39}

Toward the end of *Time Regained*, one of the Narrator’s most profound experiences with involuntary memory occurs after he has an encounter with an “uneven paving-stone.” In this scenario, the narrator, on his way to an “afternoon party,” laments his inability to recall, in any great or vivid detail, his time in Venice. He describes the results of his mental effort as evoking in his mind nothing more than a series of events, or “snapshots,” which seem to him “as boring as an exhibition of photographs.”⁴⁰ Upon arriving at the party, the narrator disembarks from his carriage, and in an attempt to avoid another on-coming carriage, trips over the uneven paving-stone. While trying to regain his balance, a sudden and unexpected sense of happiness and calm overtakes him. Images of “a profound azure,” and “impressions of coolness, of dazzling light,” come to life in his mind.⁴¹ He realizes later that the uneven paving-stone triggered, through association, his memories of Venice in a way that his conscious attempts at recollection could not:

³⁸ Henri Bergson, *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (New York: The Macmillan Company, 1913), 102–103.

³⁹ Shattuck, *Proust’s Way*, 112–113.

⁴⁰ Proust, *In Search of Lost Time—Time Regained*, 253–254.

⁴¹ *Ibid.*, 256.

And almost at once I recognized the vision: it was Venice, of which my efforts to describe it and the supposed snapshots taken by my memory had never told me anything, but which the sensation which I had once experienced as I stood upon two uneven stones in the baptistery of St. Mark's had, recurring a moment ago, restored to me complete with all the other sensations linked on that day to that particular sensation, all of which had been waiting in their place—from which with imperious suddenness a chance happening had caused them to emerge—in this series of forgotten days.⁴²

Proust viewed involuntary memory as superior to the conscious retrieval of past events, voluntary memory tending to recall events not as they were actually experienced, but as “reworked by intelligence and...translated into concepts.”⁴³ Once translated into concepts, “reworked” memories lost the sensory and experiential detail that existed in the original moment, they became a series of “snapshots,” a “uniform depiction of life,” and “fragments” of memory which the conscious mind “further reduces by preserving of them only what is suitable for the utilitarian, narrowly human purpose for which it intends.”⁴⁴ Voluntary memory sheds the vestigial details of past experience, providing objective detail and “generalizable knowledge about the world that allows us to predict the consequences of current action,” it “get[s] the facts right, but not the feel.”⁴⁵

⁴² Proust, *In Search of Lost Time—Time Regained*, 256.

⁴³ Russell Epstein, “Consciousness, Art, and the Brain: Lessons from Marcel Proust,” *Consciousness and Cognition* 13 (2004): 218.

⁴⁴ Proust, *In Search of Lost Time—Time Regained*, 260-264.

⁴⁵ Epstein, 218.

Conversely, involuntary memories recreate the “true” experience, a re-instantiation of the past, with all the concomitant sensory, spatial and emotional associations that define a moment in time. In triggering a series of involuntary memories, and in opening the door to a multitude of moments freed from the constraints of linear time, the paving-stone allowed the narrator’s “being to secure, to isolate, to immobilize—for a moment, brief as a flash of lightening—what it normally never apprehends: a fragment of time in the pure state.”⁴⁶

Involuntary memory, perhaps the clearest manifestation of Proust’s conception of reality, brings the associative principle of metaphor into material existence through experience, and points to the phenomenon of association as an underlying principle, revealing it as the means through which Proust connects and resolves the various technical and structural elements that exist within his narrative style.

⁴⁶ Proust, *In Search of Lost Time—Time Regained*, 264.

Chapter 3

Dutilleux's Compositional Techniques: Progressive Growth

The manner in which Dutilleux chose to approach time and memory can be divided into two broad perceptual categories: “musical objects” (or “sound events”) that exhibit **progressive growth** and “musical objects” (or “sound events”) that are comprised of, and rely upon, **referential devices**.

Aspects of Dutilleux's perceptual categories can be connected to Proust's views on voluntary and involuntary memory. As previously mentioned, Proust viewed the conscious retrieval of events in a negative light, equating the mental process to a snapshot. Like an individual memory, a snapshot captures a single moment in time: it creates an *arrested instant*,¹ which in isolation lacks temporal dimensionality; like the snapshot, an individual memory can acquire longevity through repeated viewing, but only acquires meaning (and dimensionality) when viewed in relation to other memories.² In a similar fashion, Dutilleux's referential devices, like voluntary memory, lack dimensionality; comprised of isolated musical structures, referential devices appear in the same basic guise, an arrested musical instant that only gains structural and relational significance through static reiteration.

In contrast to voluntary memory and referential devices, which will be discussed in Chapter 6, Dutilleux's concept of progressive growth could be described as a compositional approach that, through the application of certain developmental techniques, produces a

¹ *Instantané*, the French word for snapshot, appropriately translates as “arrested instant.”

² Shattuck, *Proust's Binoculars*, 46-47.

musical dimensionality reflective of Proust's temporal dimensionality—a dimensionality that results from either a multiplicity of individual perspectives or an episode of involuntary memory.³



Progressive Growth

Conceptually, Dutilleux's process of progressive growth is a dynamic, developmental process whereby the various parameters and structural building blocks that combine to characterize a musical object—motivic, rhythmic, timbral or otherwise—are subjected to a slow and continuous transformation over the course of a section, movement or work so that the affected structure, parameter or both may emerge at the end of the transformation bearing little resemblance to the original. In discussing the application of progressive growth to his orchestral work *Métaboles*, Dutilleux compared the technique to natural metamorphic processes:

...in each of [*Métabole's*] five movements there's an element destined to undergo the process of "progressive growth," and an element which will recur and develop in the movement that follows. At the end of the first movement you find the opening of the second...or rather, the other way round...you could compare it with the way tiles overlap on a roof. This element undergoes a succession of changes, of metamorphoses, until, after a

³ Episodes of involuntary memory are perhaps even more accurately represented by the sections of *Ainsi la nuit* that Dutilleux referred to as *Parenthèses*, which will be discussed in detail in Chapter 7.

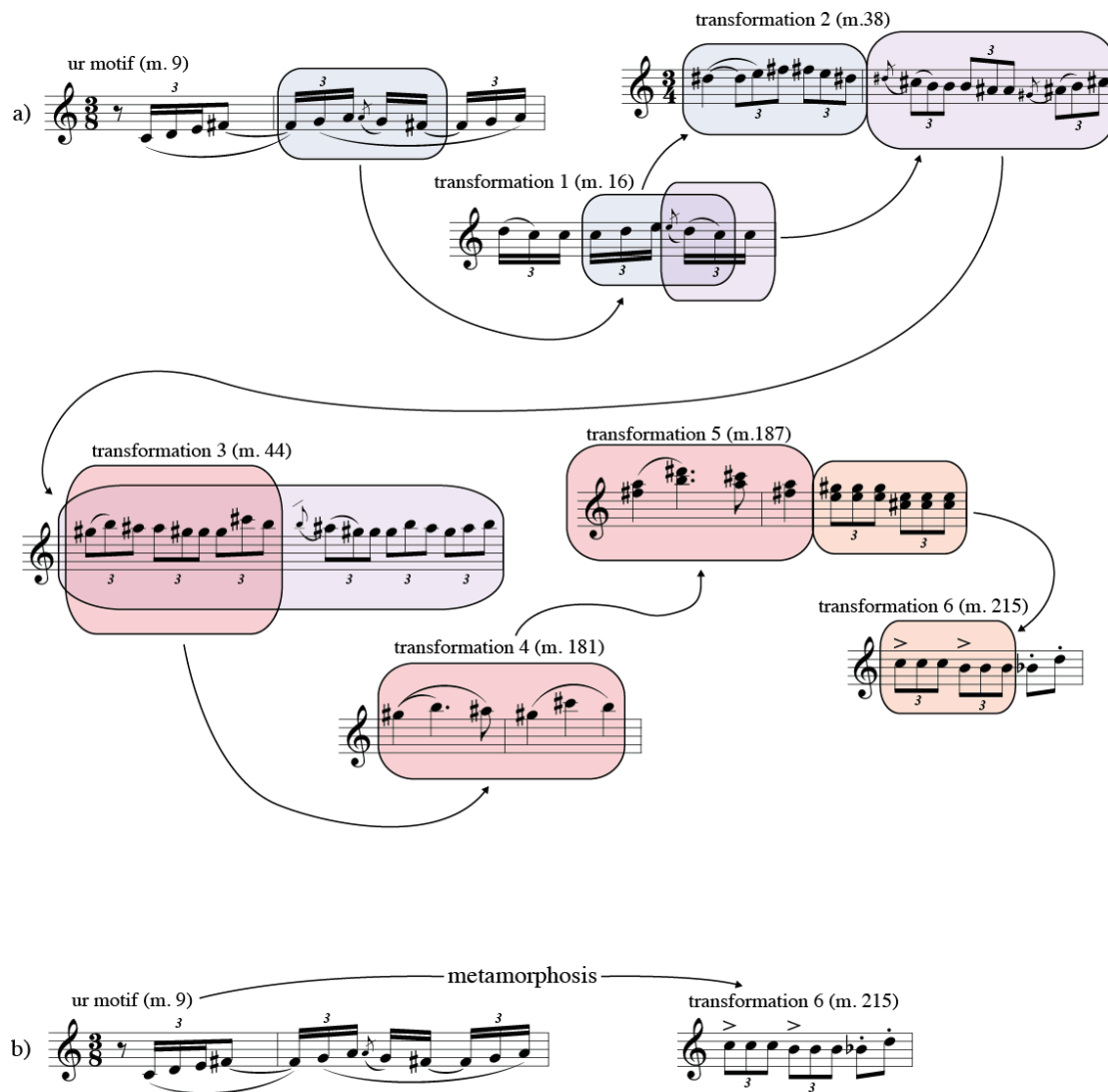
certain number of them, as with insects, you find that there's an essential change in its nature: the original idea is almost unrecognizable.⁴

In some respects, Dutilleux's description of progressive growth bears more than a passing resemblance to "thematic transformation," and the nineteenth-century tradition of "spinning out" a single theme across an entire work by creating variations upon variations. To illustrate, the figure below traces the opening theme from the second movement of Debussy's *La Mer* as it transforms across the entirety of the movement (Figure 3.1a). The similarity between Dutilleux's description of his technique—an insect-like metamorphosis—and Debussy's thematic transformation seems pretty clear: like a game of "telephone," what appears at the end of the piece scarcely resembles what existed at its onset (Figure 3.1b).⁵ However, it is important to understand that while progressive growth and thematic transformation have some technical similarities—for example, they both rely on common developmental techniques such as transposition, inversion, retrograde, augmentation and diminution to affect a transformation—they differ in a number of important ways.

⁴ Dutilleux and Nichols, "Progressive Growth," 89.

⁵ In the game "telephone," a group of children sit in a line. The child at one end of the line whispers a phrase to the child next to him or her, and that child then repeats it to the next child. This continues on down the line until the child at the opposite end of the line receives the penultimate child's whispered message. This child then states out loud what they have heard to the entire group. More often than not, each version of the phrase is slightly different, and the end result is a phrase that has completely transformed.

Fig. 3.1 Debussy: *La Mer*, thematic transformation of the primary motif in the second movement, *Jeux de vagues*.



First, Dutilleux diverged from his predecessors in his approach as to what exactly he was transforming. Eighteenth- and nineteenth-century composers focused on the creation of a clear theme or motif that was stable and recognizable throughout the work. Dutilleux conceptually distanced himself from the idea of a “theme,”—in one interview for example, describing the leitmotif, and its reliance on memorability, as “extremely irritating,” revealing “an identity immediately,” and declaring, “here I am again, it’s still me!”⁶ Instead,

⁶ Dutilleux and Glayman, *Music – Mystery and Memory*, 53.

Dutilleux, like many of his twentieth-century contemporaries, looked more to the musical object than to a theme or motif, regarding those musical objects much as Witold Lutoslawski regarded his “key ideas:” as “independent complex[es] of sounds bounded in time.”⁷

Second, unlike his nineteenth-century predecessors, who generally favored an overt presentation of theme or motif, Dutilleux’s musical objects are usually introduced covertly. In an interview with Roger Nichols, he pointed to:

...a tendency – it’s almost entirely intuitive – not ever to present the theme in its definitive state at the beginning. I’m not talking about cyclic form; that’s different, because there is a theme, which is laid down at the start, as in Debussy’s string quartet. In my case, instead of that there are small cells, which develop bit by bit.^{8, 9}

Third, in the nineteenth-century tradition, many or most of the parameters that serve to define a theme (melodic and rhythmic contour, intervallic content) are carried over in some form to each permutation of the theme, resulting in both a strong connection for the listener between each permutation, and a single, linear metamorphosis that is highly traceable. Dutilleux’s transformative processes moved beyond this. Remember that in his description of progressive growth, he referred to an “element” that “undergoes a

⁷ Witold Lutoslawski, “Problems of Musical Form,” in *Lutoslawski on Music*, ed. and trans. Zbigniew Skowron (Plymouth, UK: The Scarecrow Press, Inc., 2007), 16.

⁸ Dutilleux and Nichols, “Progressive Growth,” 89.

⁹ While Dutilleux clearly refers to a theme in this quote, later in the interview, he goes on to describe his ideas, which present as “motivic” or “thematic,” more abstractly – as “musical objects” or “sound events.”

succession of changes, of metamorphoses.” By replacing as his “subject matter” the conceptually more concrete and parametrically integrated *theme* or *motif*, with that of the more conceptually abstract *musical object*, he afforded himself the additional possibility of separating—and individually transforming—each of the musical object’s constituent parameters.

This is not to say that Dutilleux completely eschewed the idea of including within a work horizontal material that presented as thematic or motivic. However, in any given work, an exact reiteration of that type of horizontal material rarely occurs. The transformative processes that result in progressive growth were usually applied so continuously and in so many different combinations to the material that might be considered motivic or thematic, that pinning any one iteration down and designating it as *the theme* or *the motif* is nearly impossible. In fact, as will be shown Chapter 6, the continued reiteration and parametric stability that is associated with the eighteenth- and nineteenth-century motif and theme often describes better those sound events and musical objects that Dutilleux referred to as referential devices.

Manipulating the Musical Object

In looking to understand better what separates Dutilleux’s manipulation of the musical object from the standard manipulation of the theme—or rather, what separates the idiosyncratic techniques that result in a process of progressive growth from the standard developmental techniques involved in a nineteenth-century thematic transformation—it is useful to first define what is meant by the term *musical object*, and then to explore the different elements that form an object.

The Musical Object

As applied specifically to Dutilleux's compositional techniques, the musical object could be described as being comprised of two basic parts: 1) an underlying pitch structure and 2) all the other non-pitch parameters that combine to make the underlying pitch-structure of the musical object recognizable as an independent idea. Examples of non-pitch parameters include (but are not limited to) timbre, register, rhythmic and melodic contour, and dynamic marking.

The reason for the separation of parts is simple: as previously mentioned, Dutilleux felt free to isolate and manipulate—or rather, transform—any parameter. In other words, as often as not, *Dutilleux would transform the parameter of pitch-structure independently of the other, non-pitch parameters, and vice versa.*

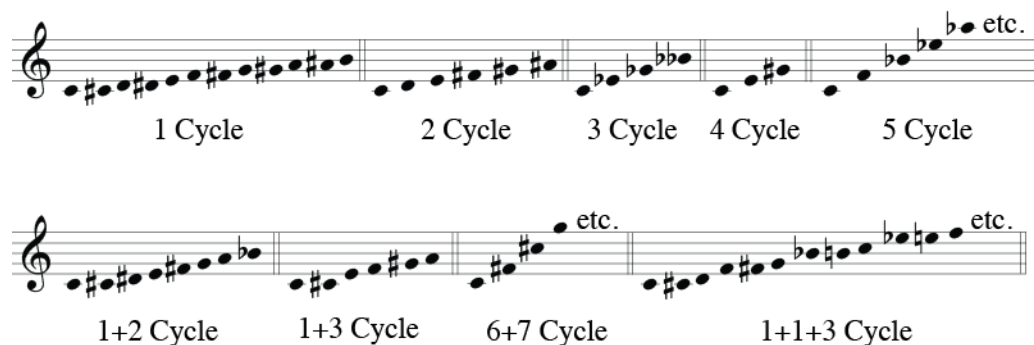
Pitch Structures, Mode, and Interval Cycles

When looking at Dutilleux from the standpoint of pitch structure, it is important to point out that Dutilleux is primarily what could be termed a *modal* composer, as opposed to a *set* composer. A clarification needs to be made however, with regard to the term *mode*. We can discuss two different types of mode: the seven, traditional modes—derived from the diatonic scale—and the so-called synthetic modes. Much like Olivier Messiaen, Dutilleux primarily used the latter and avoided the former. However, these modes—some of which were referred to by Messiaen as the “modes of limited transposition”—are perhaps more easily understood as interval cycles, which is a description that is more appropriate when discussing Dutilleux's use of “modes.”

Dutilleux's use of symmetrical interval cycles extended to all but one of the “naturally occurring” cycles and include: 1 Cycle (the chromatic scale), 2 Cycles (the

whole-tone scale, Messiaen's mode 1), 3 Cycles (fully-diminished seventh-chords), 4 Cycles (augmented triads) and 5 Cycles (from which the pentatonic scale is derived).¹⁰ Additionally, Dutilleux used common compound interval cycles like the octatonic scale (1+2 Cycle, Messiaen's mode 2) and the hexatonic scale (1+3 Cycle).¹¹ Furthermore, Dutilleux would create his own compound interval cycles. Examples of these include a 6+7 Cycle, found at various points in *Ainsi la nuit*, and a 1+1+3 Cycle, found in both *Ainsi la nuit* and *Timbres, espace, mouvement*.¹²

Fig. 3.2 Interval cycles commonly found in Dutilleux's music.



While Dutilleux's use of interval cycles was extensive, and the primary means by which he created in his pitch language, he also used sets. However, these sets are always initially derived from an interval cycle—or rather, the sets are interval cycle subsets; the specific transposition of the subset placing it “inside” the interval cycle the way a G Major

¹⁰ I say “all but one” of the interval cycles. This has to do with the fact that a 6 Cycle—or rather, a tritone—repeats after only two notes. So, while it is technically an interval cycle, there is little point in differentiating between a tritone and a 6 Cycle when analyzing a work.

¹¹ The octatonic scale may also be viewed as two 3 Cycles overlapping at the distance of a minor 2nd—that is, the first 3 Cycle is comprised of scale degrees 1, 3, 5, and 7, the second 3 Cycle is comprised of scale degrees 2, 4, 6 and 8. Similarly, the hexatonic scale may be viewed as two 4 Cycles that also overlap at the distance of a minor 2nd.

¹² Like the octatonic and hexatonic scales, Dutilleux's 6+7 Cycle and his 1+1+3 Cycle may be thought of as two 1 Cycles overlapping at the distance of a tritone and three 5 Cycles overlapping at the distance of two successive minor 2^{nds}, respectively.

triad exists “inside” a C Major scale. In this way, Dutilleux is not much different than his tonal predecessors; they all “unveiled” an underlying pitch structure by combining subsets of that pitch structure.¹³

There are, however, two big differences between Dutilleux and his tonal predecessors. First, where the tonal composers essentially stuck to one underlying pitch structure—a diatonic scale—Dutilleux moved, often rapidly, between different interval cycles. In this respect, he is truly an inheritor of both Debussy’s and Bartok’s musical language. Second, while Dutilleux’s sets are primarily derived from an underlying interval cycle, he will also “break off” a derived subset from its interval cycle. These sets tend to be small—three to four notes (remember Dutilleux’s comment about “small cells” on page 33)—and, once emancipated from the cycle, transform freely. In other words, they are transposed, inverted, retrograded, etc., “outside” of the interval cycle—that is, they are transformed in a manner more closely associated with his atonal predecessors. Dutilleux is a product of the twentieth-century after all.

The Separation of Parameters: Genotype and Phenotype

A musical object’s non-pitch parameters could then be viewed as “surface traits,” or the visible characteristics of the musical object, and because every non-pitch parameter is open to a separate transformation, the number of “offspring” that one of Dutilleux’s musical objects is capable of producing is far larger and more complex than that of the traditional musical theme or motif, which requires that a majority of “surface traits” be carried over between permutations in order to maintain a traceable lineage for the listener.

¹³ For example, one could say that Beethoven, by utilizing specific instantiations (transposition and inversions) of 037 slowly unveils his underlying pitch structure, which is, of course, a major or minor scale.

The terms “offspring” and “lineage” are used intentionally here, as there is a strong hereditary component to Dutilleux’s process of progressive growth. Because of the “evolutionary” qualities that are present in Dutilleux’s metamorphic processes, I am borrowing the genetic metaphor from Kenneth Hesketh and applying it, as he does, to the musical object’s pitch structures and non-pitch parameters. In his article *The Backbone of the Night: Mechanisms of Evolution in Henri Dutilleux’s Ainsi la nuit*, Hesketh connects aspects of Dutilleux’s metamorphic processes to evolutionary processes, viewing each musical object as being comprised of both a *genotype* and a *phenotype*. From Hesketh’s point of view, a musical object’s genotype is comprised of its “full hereditary information,” its complete and possibly unrealized *pitch structure* in combination with all of the non-pitch parameters that could characterize the object.¹⁴ A musical object’s phenotype however, is comprised of “surface traits,” the expressed and *observable* parameters that define any particular instantiation or realization of the conceptually more abstract musical object.¹⁵ Figure 3.3, based on one of Hesketh’s own examples, illustrates his concept as it applies to the opening chord from Dutilleux’s string quartet *Ainsi la nuit*. On the left is the underlying abstract pitch structure (a 7 Cycle), the hidden DNA from which the musical object was derived; on the right is the first instantiation of that structure, appearing in the string quartet’s opening measure, its phenotype comprised of a specific voicing of a *segment* of the complete underlying pitch structure (genotype), together with specific

¹⁴ Kenneth Hesketh, “The Backbone of the Night: Mechanisms of Evolution in Henri Dutilleux’s *Ainsi la nuit*,” *Contemporary Music Review*, 29, 5 (October, 2010): 466.

¹⁵ *Ibid.*, 466-467.

register, articulation and rhythmic and dynamic profiles.¹⁶ It is important to reiterate that genotype refers to the complete pitch structure (in this case the 7 Cycle), which may or may not be fully realized during the course of the work, and so, as in the figure below, the particular phenotype of an object may (and usually does) only express a portion of the musical object's complete genotype. Additionally, genotype conceptually "exists" independently of phenotype—that is, genotype can "express *itself*." Conversely, phenotype is dependent upon genotype; it requires in its expression, the elements (i.e.: pitches) of the genotype.

Fig. 3.3 Dutilleux: *Ainsi la nuit*, opening chord expressed as *genotype* and *phenotype*.

The figure displays a musical score for the opening of Dutilleux's *Ainsi la nuit*. It consists of two staves, treble and bass, with a key signature of three sharps (F#, C#, G#). The time signature is 3/4. The score is divided into two sections by a vertical line. The first section, labeled 'Genotype: underlying structure', shows a complex chord structure with many notes. The second section, labeled 'Phenotype: surface traits, visible characteristics', shows a simplified version of the chord structure with fewer notes. Arrows connect the notes in the genotype section to the notes in the phenotype section, illustrating the relationship between the two. Dynamic markings *ppp* and *pp* are present in the phenotype section. The time signature (3) is also indicated in both sections.

Genotype:
underlying structure

Phenotype:
surface traits,
visible characteristics

Metamorphic Processes

Once the pitch parameter is separated from the other, non-pitch parameters that constitute a musical object, it becomes possible to discern three distinct and underlying processes at work. The first involves **processes of structural transformation**, which

¹⁶ Hesketh, 469.

affect genotype on the small-scale—that is, the object’s pitch structure. On the medium- to large-scale, processes of structural transformation affect phrase structures and formal organization, respectively. The second and third processes, **processes of parametric transference** and **processes of parametric transformation**, affect phenotype—the musical object’s surface traits (i.e., the musical object’s non-pitch parameters). While not wholly dependent upon one another, these two processes tend to work in tandem.

Processes of Structural Transformation

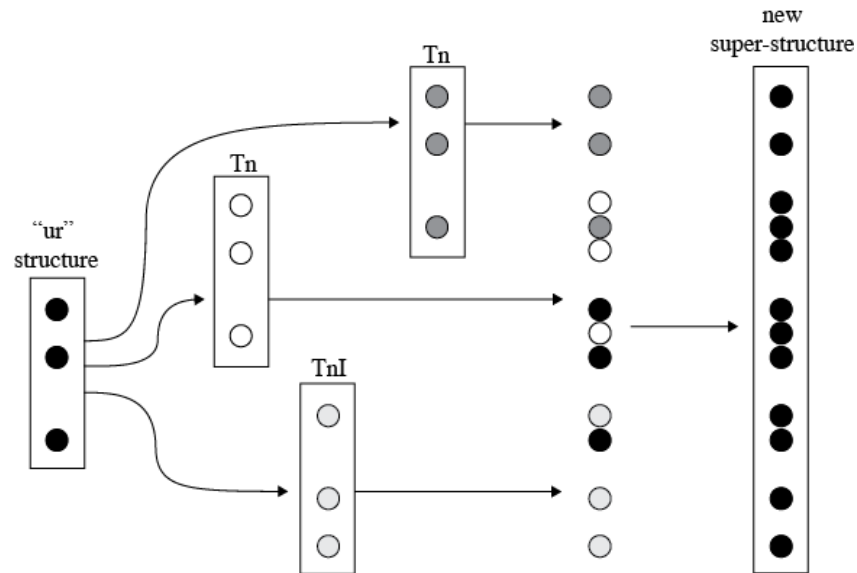
Often used in conjunction with standard developmental techniques, there are three unique processes in Dutilleux’s music that result in a structural transformation.¹⁷ The first of these affects pitch structures (as opposed to phrase structures or formal organization), and is essentially an idiosyncratic extension of transposition and inversion. As previously mentioned, Dutilleux’s eighteenth- and nineteenth-century counterparts tended to transpose or invert an entire theme or motif, or a recognizable fragment thereof, typically along with all of its associated parameters, as a single, isolated unit. While Dutilleux occasionally utilized this technique, he would also transpose or invert (possibly several times) a small pitch-cell, combining the cell with its original transposition and some or all of its earlier transpositions or inversions, in essence creating a new **pitch superstructure**, which could then be subjected to additional, further transformations.¹⁸ It is important to point out that this technique, which results in an underlying pitch superstructure, is *different* from that of the interval cycle. Instead, the pitch superstructure is often *derived*

¹⁷ When I refer to standard developmental techniques, I am referring primarily to traditional compositional techniques such as inversion, retrograde, augmentation and diminution.

¹⁸ It is impossible to say which came first—that is, did Dutilleux create the pitch superstructure first and then slowly reveal it by individually presenting constituent subsets, or did the pitch superstructure result from a series of subset transpositions and inversions? I would venture to say that both techniques are possible and probable.

from an interval cycle or multiple interval cycles. For example, when combined, two complementary and overlapping interval cycles, or interval cycle subsets, could result in a new and unique superstructure that provides the pitch content for a section or movement.

Fig. 3.4 The creation of a pitch superstructure through transposition and inversion.



The second of the processes that result in a structural transformation can be approached in two different ways—as a concept, and as the actualized musical product of that concept. Conceptually, we could view the constituent parts of a musical object as undergoing a process of **compound-rotation**. Here, the term “rotation” does not imply an ordered progression of pitches as it does in set theory.¹⁹ Instead, compound-rotation could be compared *conceptually* to the physical movement of the type of kinetic sculpture known as a mobile, the various structural elements that comprise a musical object—the constituent pitches of a trichord, for example—represented by the various elements in the

¹⁹ In set theory, the term rotation (also referred to as cyclic permutation) denotes a process whereby an ordered series of pitches is “rotated” by starting the ordered series on a new member of that series. For example, (1,2,5,0), (2,5,0,1) and (5,0,1,2) could all be viewed as rotations of tetrachord (0,1,2,5).

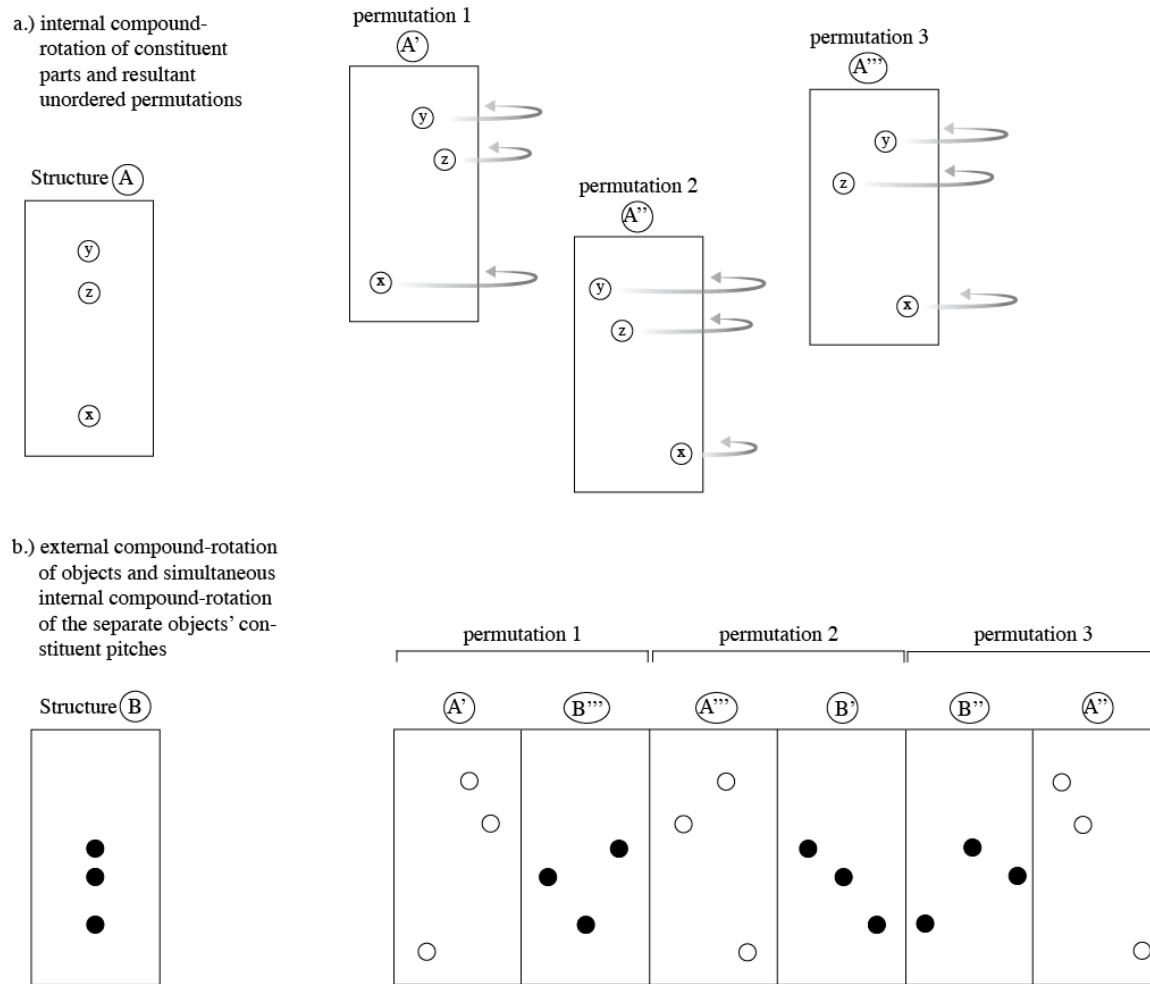
mobile.²⁰ Imagine with every movement of the mobile, each structural element “rotates” discretely and at a separate rate. The subsequent compound-rotation presents the viewer (or the listener) with a new arrangement—a new order—of elements.²¹ This takes us to the actualized musical product of compound-rotation: a series of **unordered permutations** of the object’s constituent parts. The conceptual process of compound-rotation, and the actual resultant series of unordered permutations, can then be applied recursively across all structural levels. At the smallest level, a series of compound-rotations affects the *internal* structural components of a musical object—that is, it results in a series of unordered pitch permutations (Figure 3.5a). On a slightly larger level, the *external* compound-rotation of separate musical objects, ideas or phrases results in a series of unordered permutations of those separate musical objects, ideas or phrases with each other (Figure 3.5b). At the largest level, compound-rotation will also result in a series of unordered permutations between discrete formal sections.

In the following sections and chapters compound-rotation will often only be described by its musical product—as unordered permutations. Nevertheless, it should be understood that behind either description, the concept of compound-rotation is always implied, as is the idea that with each unordered permutation of a musical object’s constituent pitches the listener is being presented with a non-linear series of different perspectives of that musical object. In other words, one description implies the other and vice-versa.

²⁰ Important: my use of the term mobile does not imply *mobile form* and should not be equated with that formal type.

²¹ We will return to, and explore, the mobile metaphor in much greater detail toward the end of Chapter 4.

Fig. 3.5 Internal and external compound-rotation of objects and their constituent parts.

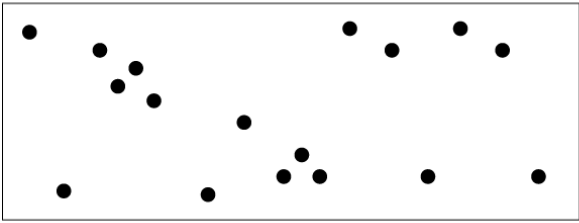


The third and final process of structural transformation, **segmentation and recombination**, is generally applied to phrase-level material, and essentially works like this: a pitch-structure is divided into two or more parts, these segments are then recombined with each other *and with other pre-existing pitch structures*, which may or may not have also undergone a process of segmentation. The result? A new and unique structure—a structural offspring with a unique genotype—that, once established, can be subjected to further transformations through one or all of the other transformative processes previously outlined (Figure 3.6). While on a macroscopic level it is possible this

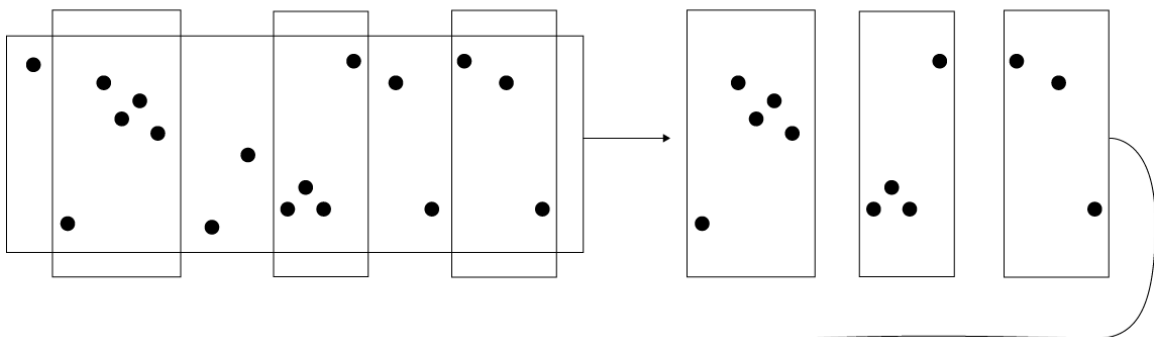
twofold process could be applied to formal sections, on a microscopic level, a process of segmentation and recombination, as applied to an isolated musical object's individual pitches, becomes difficult to differentiate from a process of compound-rotation and its resultant unordered permutations. Finally, a process of segmentation can be applied in isolation. For example, a small motivic unit that has been excised from the larger pitch structure through segmentation can also become, if segregated and repeated, an established and unique object, available to further levels of transformation.

Fig. 3.6 Segmentation, recombination and horizontally adjacent placement create a new object.

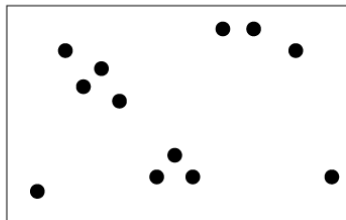
a.) original object



b.) segmentation of original object



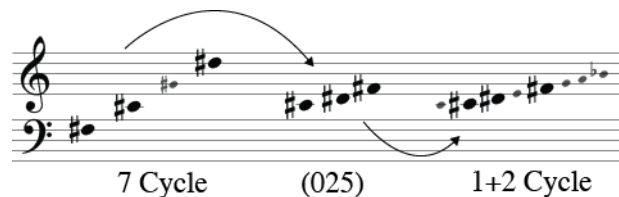
c.) recombination of segments into a new object



There is one final technique that, while not necessarily *transformative* or *metamorphic*, needs to be outlined as it is directly connected to pitch structure and to the transformation of musical objects. As previously mentioned, one of the hallmarks of Dutilleux's pitch language is a constant and rapid movement between different interval cycles. For example, it is not uncommon to find Dutilleux shifting back and forth between 1 Cycle subsets and 2 Cycle subsets, or, having shifted into a new cycle, maintaining both cycles in different voices. The method that he employed both to shift between cycles and to maintain a connection between cycles that appear simultaneously has been used for centuries—that is, he used **common tones**.²² In Figure 3.7, below, we can see how Dutilleux could, by highlighting select pitches from a 7 Cycle, create a pentatonic subset (trichord (025)) that could suddenly shift, through common tones, into a 1+2 Cycle (Oct. 0).

Dutilleux could, of course, apply any of the techniques and transformative processes outlined above, either on their own or in combination, to the various structures and structural levels that existed in his works, with each unique combination resulting in a separate transformative possibility.

Fig. 3.7 Use of common tones to shift between interval cycles.



²² While the term “pivot note” is entirely appropriate here, I am avoiding it as, will be shown in the chapter on referential devices, Dutilleux used “pivot note” to mean something different.

Processes of Parametric Transference

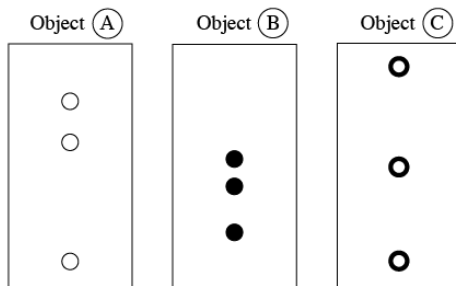
As explained earlier, whereas the processes of structural transformation primarily involve the manipulation of a musical object's *genotype*, the processes of parametric transference and transformation involve an object's *phenotype*. Specifically, with the process of parametric transference, the non-pitch parameters that combine to characterize a musical object's *phenotype* can be freely transferred from one musical object to another throughout the course of a work. For example, the melodic contour, dynamic marking and articulation that, combined with a specific underlying pitch-structure, are associated with musical "Object A," could be transferred and combined with a new or pre-existing pitch-structure, "Object B", creating musical "Object C." Put another way, the phenotypical expression of Object A is transferred to a new or pre-existing genotype ("Object B"), creating Object C. Furthermore, the entire phenotype expressed by Object A does not need to be transferred to another genotype as a complete unit. As with any organism, selected traits, or even an individual trait (for example, timbre) can be passed on to another new or pre-existing object. This process could continue uninterrupted, moving from object to object. Additionally, some or all of the phenotypical parameters associated with Object A could reappear much further down the line with "Object H." Each of these new or transformed objects could then be described as expressing a new phenotype, the result of having "inherited" a parameter or parameters, transferred from one or more of the work's many previous musical objects.

Below, Figure 3.8 provides a visual representation of a process of parametric transference. In Figure 3.8b, Object A is phenotypically characterized by specific spacing, hollow circles that are outlined by a thin edge, and a descending and repeated contour. A

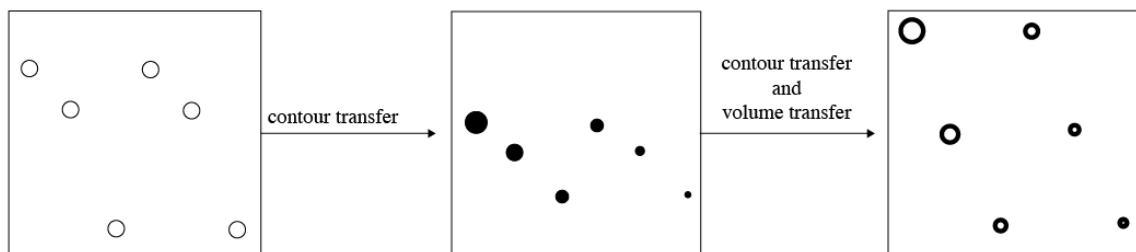
single element—contour—is then transferred to Object B, which is phenotypically differentiated from Object A by its more compressed spacing, filled-in circles, and the fact that its volume decreases as it progresses from left to right. Finally, both the contour of Object A and the decreasing volume of Object B are transferred to Object C, which is phenotypically characterized by a wider, more even spacing, and hollow circles that are outlined by a thick edge. Notice that while genotype is maintained between objects—that is, structurally each object is comprised of circles—the transfer of phenotypical parameters from one object to another alters, in a not insignificant way, the outward appearance of Objects B and C.

Fig. 3.8 The transference of phenotypical parameters (i.e.: surface traits) between separate objects.

a.) separate objects



b.) transfer of phenotypical parameters between objects



Processes of Parametric Transformation

In discussing parametric transformation, we return again to Dutilleux's assertion that a defining feature of his orchestral work *Métaboles* is the concept that there is a single "element" which will, throughout the course of a movement, "[undergo] a succession of changes, of metamorphoses." This concept is perhaps one of the more unusual aspects of progressive growth—namely, that Dutilleux is willing to detach (through parametric transference) and transform a single phenotypical parameter (for example a specific articulation or timbre), treating that parameter as a discrete element. Here we can see Dutilleux approaching such an element as one of his eighteenth- or nineteenth-century predecessors might have approached a parametrically integrated theme or motif.

There are two basic methods by which Dutilleux affects his process of parametric transformation. The first method looks both to standard developmental techniques and to his processes of structural transformation, essentially borrowing and applying features of each process or technique to a specific phenotypical parameter or parameters. For example, a melodic contour—that is, the basic shape of a line, not necessarily its exact pitch or interval sequence, or underlying pitch-structure—can be inverted or retrograded, perhaps even augmented (expanded) or diminished (contracted). Additionally, that same melodic contour could be subjected to segmentation and recombination, the new order of contour sections resulting in a transformation of that particular parameter and therefore, a transformation in the outward appearance of the musical object.

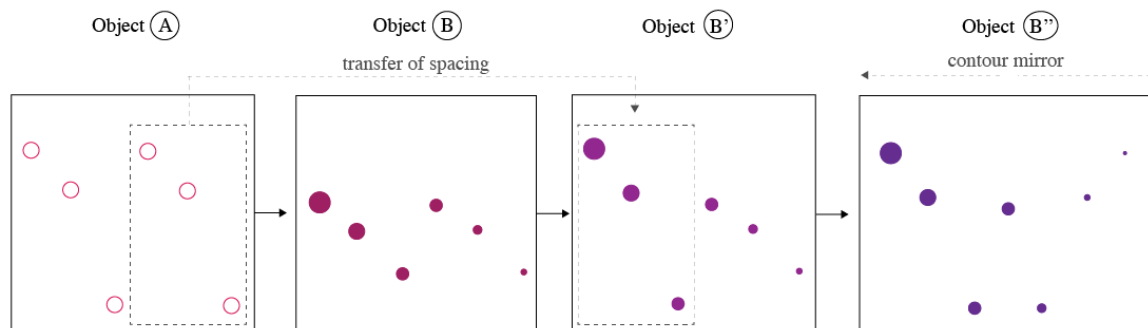
The second method looks more to the standard linear metamorphosis, achieved by incrementally altering a specific parameter with each iteration, parametric transfer, or both. In this respect, the technique exhibits parallels with the way Debussy transforms a

parametrically-integrated theme or motif; the difference here being the application of this process to a single, and less concrete phenotypical parameter.

With both methods the hereditary component still exists, and often each transformation results when the transferred parameter appears in a new musical environment, shifting the phenotypical expression of that parameter slightly in response to the individual phenotypical characteristics that distinguish a new musical object or sound event.

Fig. 3.9 The transformation of objects through the transference and transformation of phenotypical parameters.

a.) transformation of phenotypical parameters



b.) linear transformation of color (i.e.: timbre)



Above, Figure 3.9 illustrates some of the ways a phenotypical (i.e.: parametric) transformation can manifest across objects. First, as with Figure 3.8, Object A transfers its melodic contour to Object B. The transformation from Object B to Object B' occurs when the parameter of spacing is transferred from Object A to the first three notes of Object B, creating a new contour. The final transformation to Object B'' occurs when the first four elements of Object B' are segmented and mirrored, creating yet another contour. Notice that between Objects B through B'' some parameters are maintained between

transformations—namely, that volume always decreases from left to right, and that the elements are filled-in. Figure 3.9b then shows the continual and linear transformation of color, which continues across separate objects and independently of all other parametric transfers and transformations. Finally, it is worth noting that in Dutilleux's music, objects do not necessarily appear one after the other as they do in the figure below. Rather, just as often the transformation of objects (whether parametric or structural) will be interrupted—in other words, Objects B and B' could be separated by other objects, events or sections.

Chapter 4

Processes of Progressive Growth in *Ainsi la nuit*

Dutilleux's string quartet, *Ainsi la nuit* (1973-76), was the piece that he usually referred to when discussing issues of time and memory and has been described both as his most "Proustian work," as well as the work in which he was "to the greatest extent, [himself]."^{1, 2, 3} For those reasons it is perhaps one of the best works to refer to when studying his application of progressive growth, providing a wealth of examples for each of the previously discussed processes. Additionally, while these processes exist in varying degrees across his entire catalogue from his *Première Symphonie* (1951) onward,⁴ in *Ainsi la nuit* we find an intensification of those same processes, their use expanded and executed on a temporally more compressed scale.

Unlike the majority of his works, which adhere to a more traditional movement scheme—works comprised of three to four lengthy and discrete movements—*Ainsi la nuit* comprises an uninterrupted series of seven short movements, preceded by a short *Introduction* and separated by four even shorter *Parentheses* (Figure 4.1).

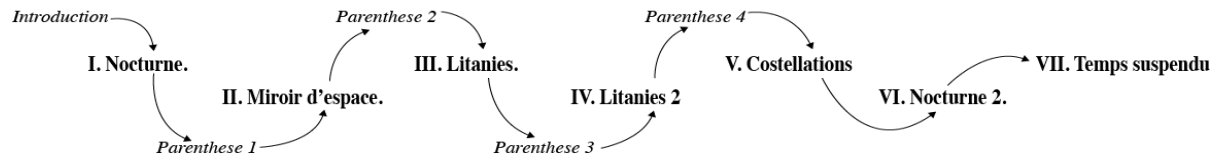
¹ Potter, 72.

² Ibid., 72.

³ Dutilleux and Glayman, *Music – Mystery and Memory*, 77.

⁴ Dutilleux and Nichols, "Progressive Growth," 89.

Fig. 4.1 Arrangement of movements and Parentheses in *Ainsi la nuit*.



Processes of Structural Transformation in *Ainsi la nuit*

The first section of the Nocturne (measures 1 through 9) emerges directly out of the 'Introduction' and provides an excellent illustration of the process whereby Dutilleux slowly builds and reveals an underlying **pitch superstructure**. In order to more clearly explain this process, Example 4.1 presents the Violin I part in isolation.

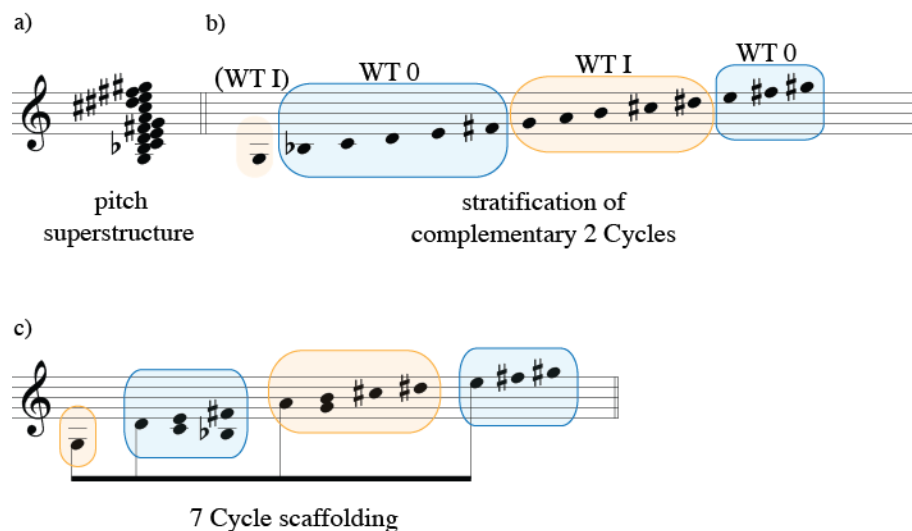
Ex. 4.1 Dutilleux: *Ainsi la nuit* (Nocturne, Violin I, mm 1-9).



Figure 4.2a shows the pitch complex that provides the underlying structure to this passage. Notice that this structure is both a fixed-register structure, and (as seen in the example above) is never revealed through any single instantiation, but rather through an

accumulation of pitches.^{5, 6} Figure 4.2b displays Dutilleux's aforementioned inclination toward creating pitch superstructures by combining related pitch collections. In this case, Dutilleux creates his fixed-register pitch superstructure by transposing and combining three separate 2 Cycle subsets, highlighting, through stratification, the complementary nature of those 2 Cycle subsets (Whole-Tone 0 is shown in blue, Whole-Tone I in orange). Additionally, Figure 4.2c shows how another interval cycle—a 7 Cycle—acts as a hidden scaffolding for the stratified 2 Cycle subsets, providing the initial pitch for those subsets, which either branch upward from the scaffolding, downward, or in both directions. The reason for this particular segment of 7 Cycle pitches is that Dutilleux makes use of the open strings of the quartet.

Fig. 4.2 Perspectives on the first violin's underlying pitch superstructure in the opening measures of the Nocturne.



⁵ Fixed-register pitch structures form an important part of Dutilleux's compositional language, but for the most part, fall into the category of referential devices, and will therefore be discussed in the Chapter 6.

⁶ In fact the pitch superstructure is only presented once in its entirety—and fleetingly so—by the second violin toward the end of measure 6 (two beats before Rehearsal 3, see Example 4.2, below).

Example 4.2 (below) presents the opening section of the Nocturne in its entirety. This example demonstrates that the vast majority of the objects that appear in these measures share a common genotype—that of a 2 Cycle—or rather, the majority of the objects in this section are comprised, structurally, of 2 Cycle subsets. Objects not comprised of 2 Cycle subsets are instead comprised of a different genotype, expressing some, or all, of the pitches that make up the 7 Cycle scaffolding (for examples, see Violin I, one beat before Rehearsal 2, and Violins I and II and the Viola at Rehearsal 3, and Violins I and II, the Viola and Cello at Rehearsal 4).

Ex. 4.2 Dutilleux: *Ainsi la nuit* (Nocturne, mm 1-9., W.T. 0 in blue, W.T. I in orange, 7 Cycle circled in black).

2

I. NOCTURNE
Asses lent (♩ = 60)

2 Cycle (WT. 0) ①

2 Cycle (WT. I)

7 Cycle ②

"anomalous tetrachord"

(Ex. 4.2 continued)

With the exception of an anomalous tetrachord that appears in the second violin and viola on the third beat of measure 5, the remaining instruments, shown in Example 4.2 (above), adhere to, and therefore confirm, the first violin's underlying pitch superstructure that was presented in Figure 4.2.⁷ In fact, we can see that the addition of the other instruments only extends the pitch superstructure upward and downward (Figures 4.3a

⁷ Regarding the anomalous tetrachord: like the surrounding music, this tetrachord is a 2 Cycle subset, and while the C# and D# of this particular instantiation (tetrachord (0246) at T₂) do appear in the vertical superstructure, they appear in the wrong register—one octave too low. Additionally, the F does not appear in the vertical superstructure at any point. There is, however, a purpose to the anomaly, it is an example of cognitive *priming*, of embedding an object within the texture of a work so that it may “prime” the listener’s mind for its use later in the work. In this case, the anomalous tetrachord reappears as an important element in the section of the Nocturne that begins with Rehearsal 5. Cognitive priming will be discussed in detail in Chapters 5 and 7.

and b). Figure 4.3b displays the continued stratification of complementary 2 cycles while Figure 4.3c shows the continuation or extension of the 7 Cycle scaffolding.

Fig. 4.3 Perspectives on the complete underlying pitch superstructure in the opening measures of the Nocturne.

a) complete pitch superstructure

b) continued stratification of complementary 2 Cycles

c) extension of 7 Cycle scaffolding

A good example of small-scale **unordered permutations**—that is, **compound rotation** at the individual pitch level—is shown in the example below, which returns to the first three measures of the Nocturne and focuses on the 2 Cycle trichord ((024), here Bb, C, D) played by the first violin (Example 4.3, below).

Ex. 4.3 Dutilleux: *Ainsi la nuit* (Nocturne, Violin I, mm 1-3).

Notice there is no set pitch sequence; instead, the musical object becomes defined more by the quality of it's underlying pitch-structure—a 2 Cycle subset—and by its surface traits: register, dynamic marking (pp) and dynamic gesture (<>), than by any combination

of fixed pitch sequence and melodic and rhythmic contour (as would be the case with a traditional motif).

If we step back and view the first 4.5 measures of the Nocturne, we can see the same technique being applied simultaneously to three separate, but related, musical objects (Example 4.4). Played by the first violin and the cello, then joined by the second violin in measure 3, the series of discrete unordered permutations that each instrument plays creates an antiphonal dialog that will return, at various times, throughout the course of the string quartet.⁸ Figure 4.4a (below) then presents each object's genotype, while Figure 4.4b provides a simplified visual representation of the stratified and simultaneous unordered permutations that are taking place with each instrument's respective musical object.

Ex. 4.4 Dutilleux: *Ainsi la nuit* (Nocturne, mm 1-5).

⁸ Note that in Example 4.4, the viola and portions of the second violin's music have been removed in order to highlight which instruments are affected by compound-rotation, as well as clearly show each object's unordered pitch permutations.

Fig. 4.4 Stratification and unordered permutations of 2 Cycle trichords that appear in the opening measures of the Nocturne.

a) **genotype: 2 Cycle**

(024) at T_{10} WT 0 (024) at T_{11} WT I (02) at T_6 WT 0

b)

rotation 1 (cello) rotation 2 (violin I) rotation 3 (violin II)

It is worth noting that it is the stratification and registral isolation of 2 Cycle subsets, along with slight differences in phenotypical parameters—the first violin plays *ordinario*, the cello plays harmonics and the second violin plays harmonics combined with a *jeté* bowing—that allows each subset to be perceivable as a separate object, and each discrete series of unordered permutations to be perceivable as part of a larger composite.

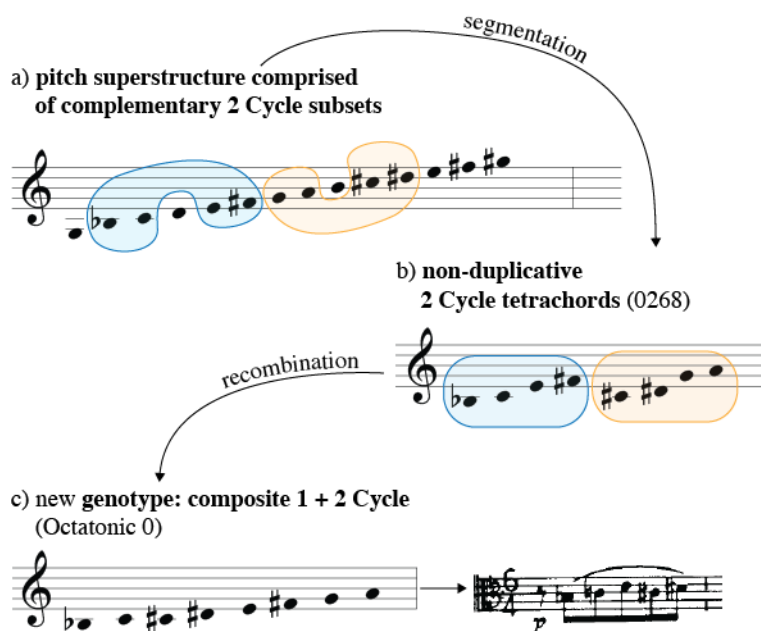
Played by the viola, the first of the Nocturne's structural offspring emerges at Rehearsal 5 (m. 12) and provides a first example of **segmentation and recombination**. In contrast to the opening measures of the Nocturne, characterized by the three-octave fixed-register pitch superstructure, this transformation is compressed, flattened onto a single registral plane. Additionally, where the Nocturne's opening measures were defined by dynamic rhythmic fluidity, the viola's transformation is marked by a higher degree of rhythmic stasis, comprised primarily of a continuous sequence of 8th notes (Example 4.5).

Ex. 4.5 Dutilleux: *Ainsi la nuit* (Nocturne, Viola, Reh. 5).



Phenotypical contrasts aside, the underlying pitch-structure that defines this transformation results from the segmentation of related, non-duplicative, 2 Cycle tetrachords. These tetrachords, both instantiations of (0268), once removed from the Nocturne's opening pitch superstructure (Figures 4.5a and b) are then recombined into a composite 1+2 Cycle, or Octatonic 0 (Figure 4.5c).

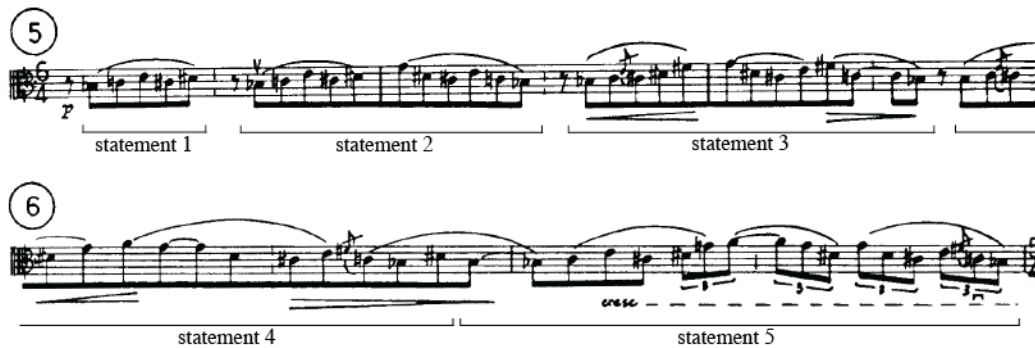
Fig. 4.5 Segmentation and recombination of pitch superstructure tetrachords.



As was the case with the violin's and cello's trichords in Example 4.4, there is no fixed version of this transformation. Rather, like the trichordal objects in Example 4.4, which presented a varying series of perspectives on their respective musical objects with each unordered permutation, we could regard the viola's line at Rehearsal 5 of the Nocturne as a musical object that presents as a series of five successive statements, each

statement providing a slightly different view of the fundamental object (see Example 4.6, below).

Ex. 4.6 Dutilleux: *Ainsi la nuit* (Nocturne, Viola, Reh. 5-6), five statements and views of the viola's musical object.



As previously mentioned, Dutilleux could, and did, combine any of the processes of structural transformation, and further analysis of the five statements that begin at Rehearsal 5 provides a good example of how, through the continued use of segmentation in combination with compound-rotation, Dutilleux created each transformation of the viola's musical object.

As a way of connecting to the vertical pitch superstructure that characterized the opening measures of the Nocturne, Dutilleux maintains the separation of non-duplicative 2 Cycle subsets. The “horizontal stratification” of the non-duplicative (0268)s could be described, phenotypically, as tracing a melodic arc (Figure 4.6a). However, the melodic arc is rarely presented in complete form. Instead, each tetrachord is further segmented (primarily) into dyadic and trichordal sub-segments. Each statement of the viola's musical object is then comprised of unique permutation of non-duplicative sub-segments, a complete instantiation of each tetrachord (and melodic arc) arriving in the third, fourth, and fifth statements (Figure 4.6b).

Fig. 4.6 Analysis of the five statements of the viola's musical object at Reh. 5 of the Nocturne.

a) octatonic aggregate

melodic arc

(0268) (0268)

tetrachordal subset of whole-tone 0 tetrachordal subset of whole-tone 1

b) compound-rotation of tetrachordal segments and sub-segments

(0,2) (0,2,6) (0,2,6,8) (0,2,6,8,2) (0,2,6,8,2,6)

statement 1 statement 2 statement 3 statement 4 statement 5

Where Examples 4.3 and 4.4 show Dutilleux's use of compound-rotation on the smallest scale—that of the individual note—and where Figure 4.6 (above) shows how Dutilleux would apply the same procedure to slightly larger structures—to pitch cells like dyads, trichords and tetrachords—Figure 4.7 and Example 4.7 below, which include the objects that accompany the viola from Rehearsal 5 through Rehearsal 6 of the Nocturne, show how Dutilleux applied compound-rotation not only to the internal components of the object, but also to separate objects and the interval cycles (or genotypes) that characterized those objects.

Fig. 4.7 Different genotypes of the accompanimental objects found at Reh. 5-6 of the Nocturne.

3 genotypes/pitch structures

1+2 Cycle (Oct. 0) 2 Cycle (W.T. 1) 1 Cycle

Ex. 4.7 Dutilleux: *Ainsi la nuit* (Nocturne, Reh. 5-6). Individual objects are circled and labeled with their respective genotypes. If neighboring objects are comprised of the same genotype, they are bracketed and labeled together.

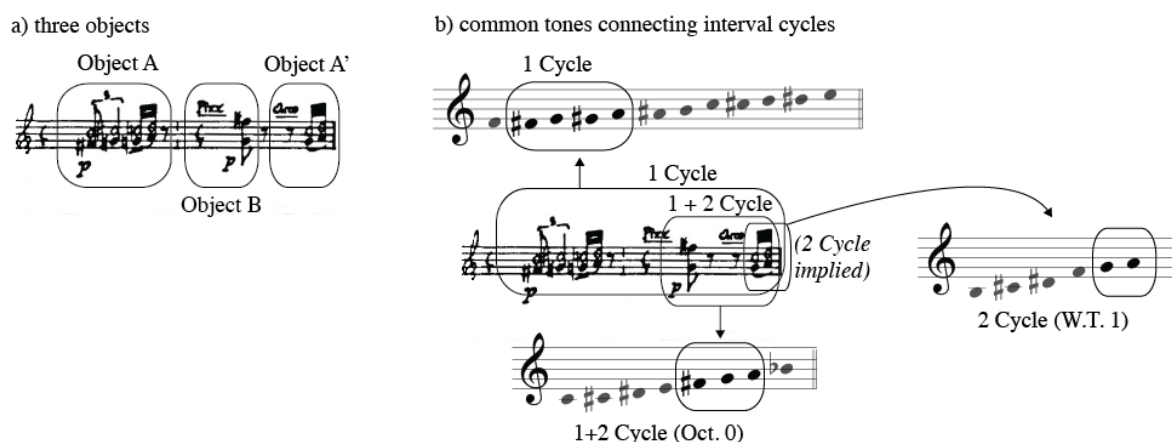
Above, Figure 4.7 presents the three different genotypes that form the various objects in Example 4.7.⁹ Notice the objects that provide the accompaniment to the viola in this section. Here, it makes sense to conceptualize the accompanimental objects as under a

⁹ Note: In Example 4.7 we are focusing solely on each object's genotype. A detailed phenotypical analysis, in combination with this genotypical analysis, appears later in the chapter with Figure 4.29 (on page 85).

process of compound-rotation, to view them as “rotating” around one another, and presenting the listener with a sequence of different object-level permutations.

Notice too that, while each object is defined by a single genotype, there are instances where determining the underlying interval cycle becomes difficult.¹⁰ This “genotypical gray area” results from the previously-mentioned technique whereby Dutilleux shifts rapidly between interval cycles and connects simultaneously sounding objects with **common tones**. We could point to the embedded 7 Cycle that featured in the first section of the Nocturne as an example of this technique, but really that structure exists *inside* the fixed-register superstructure. Instead, the figure below focuses on the objects that appear in the second violin, one measure before Rehearsal 6 (Figure 4.8a). In Figure 4.8b, we can see that the three objects (of which two are related) all share pitches that are derived from a 1 Cycle tetrachord—(0123) at T₆—but Objects B and A’ could also be interpreted as being derived from either a 2 Cycle (W.T. I) or a 1+2 Cycle (Oct. 0).

Fig. 4.8 Genotypical “gray area” created by Dutilleux’s use of common tones to connect different interval cycles.



¹⁰ The pitch structure labeled “1+2 Cycle (plus 1)” in Example 4.7 results from the addition of a D natural to the Octatonic 0 that is present in this section. However, this D natural can easily be explained as a *referential device*, a structural note that holds together different sections of the Nocturne. This technique will be discussed in detail in Chapter 6.

A final example of **segmentation and recombination** illustrates how Dutilleux, throughout the course of *Ainsi la nuit*, utilizes all of the previously examined cycles in combination to create additional horizontal pitch structures. Additionally, this example shows how, once established, Dutilleux uses specific instantiations—that is, specific interval cycle subsets at fixed transpositional levels—as elements in a larger structure.

Below, Example 4.8 presents the melodic line played by Violin I in the first half of the *Miroir d'espace*. This example could be described as being comprised of two phenotypically dissimilar ideas: the first measure, which is a loud and aggressive ascending line; and the remaining measures, which could be described as exhibiting contrasting traits—as lyrical and quiet.

Ex. 4.8 Dutilleux: *Ainsi la nuit* (*Miroir d'espace*, Violin I, Reh. 1-2).

The musical score for Violin I, first half of *Miroir d'espace*, measures 1-2. The score is in 4/4 time and features a key signature of one sharp (F#). It is divided into two systems. The first system starts with a circled '1' and includes the tempo marking 'Violent ♩ = 54' and the dynamic 'ff marcato'. The second system starts with a circled '2' and includes the dynamic 'un poco sostenuto'. The score shows a melodic line with various ornaments and dynamics.

There are two genotypes that combine to create this melodic line. Presented in Figure 4.9 below, we see a 1 Cycle hexachordal subset, and the same 2 Cycle tetrachords that were earlier recombined into the 1+2 Cycle that characterized the viola's object at Figure 5 of the Nocturne (refer back to Figures 4.5 and 4.6).

Fig. 4.9 Two genotypes that characterize the two sections of the first violin melody in *Miroir d'espace*.

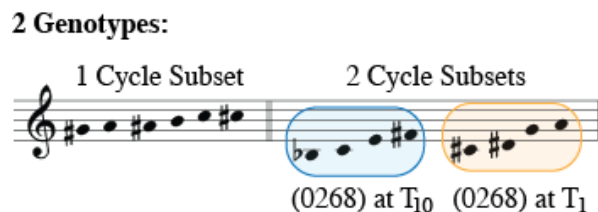


Figure 4.10 then shows that the two parts of the melodic line are not only phenotypically different, but genotypically different as well. The shorter, louder and more aggressive idea is comprised solely of a 1 Cycle tetrachord (Figure 4.10a), while the second, lyrical idea (Figure 4.10b) can be understood as an amalgamation of the 1 Cycle hexachord and the 2 Cycle tetrachords presented above. Finally, Figure 4.10b shows how Dutilleux creates the first half of the lyrical idea by embedding a trichordal subset—(026)—of the (0268) tetrachord at T_{10} between two E7s, which are part of the (0268) tetrachord at T_1 . The (0268) at T_1 then provides the structure for the second half of the lyrical idea, each note in the tetrachord providing a branching point from which portions of the 1 Cycle hexachord extend.¹¹

Fig. 4.10 The horizontal pitch structure of the first violin melody in *Miroir d'espace* resulting from the segmentation and recombination of different genotypes.



¹¹ The analysis in Figure 4.10 is partially based on Hesketh's analysis of related pitch structures in *Ainsi la nuit*. Hesketh, 477.

(Fig. 4.10 continued)

b)

(026)

ff marcato

calme

pp un poco vibr.

dim...

E, C, F# and B $\flat$ diverge chromatically

phrasing outlines structural (0268) (6, 2, 8, 2, 0)



Over the course of the last few pages, we have seen how Dutilleux manipulates the genotype—in other words, the pitch structure—of a musical object. Many of the examples have shown that Dutilleux not only applies a process of compound-rotation to individual pitches, but also to collections of pitches—pitch cells—as well as to entire objects (Examples 4.3, 4.4, 4.6 and 4.7), and that Dutilleux will apply a process of compound-rotation to several structural levels simultaneously (Example 4.7). Additionally, we have seen that Dutilleux will take elements—that is, segments—of a pre-existing structure and recombine them into a new and genotypically unique structure (Figure 4.5). And finally, Example 4.8 shows that Dutilleux takes pre-existing segments—in this case, related 2 Cycle tetrachords—and combines them with additional interval cycles in order to create yet another genotypically unique horizontal line. It should be noted that these are examples of isolated moments in *Ainsi la nuit*, and that Dutilleux's processes of structural transformation are continuously being used and combined across all structural levels throughout the course of the string quartet.

Processes of Parametric Transference in *Ainsi la nuit*

A fairly straightforward example of parametric transference can be found in the string quartet's final movement, *Temps suspendu*. At Rehearsal 25, the antiphonal dialog that unfolded across the Nocturne's opening measures returns (Figure 4.11a). The non-pitch parameters that combined to characterize, phenotypically, the first violin and cello remain largely unchanged, however the second violin and viola, which initially provided a static harmonic backdrop have now transformed, becoming far more dynamic, essentially stepping into the foreground and perceptually switching places with the first violin and cello.

Fig. 4.11 The second violin's and viola's transformed music and underlying pitch structure in *Temps suspendu* (one before Reh. 26).

a)

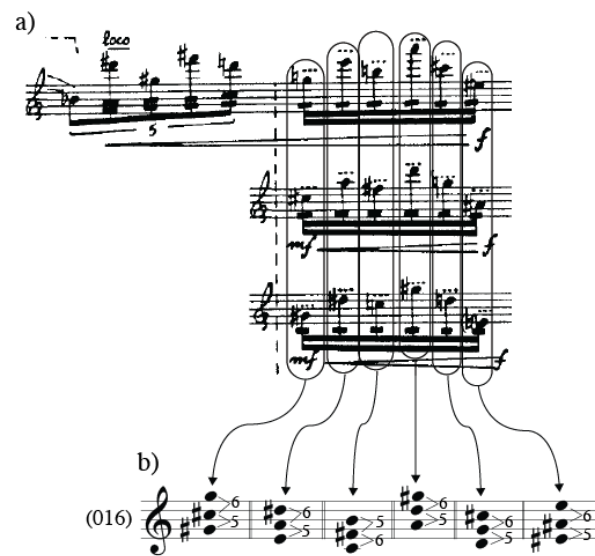
b)

This transformation is not structural—that is, it does not involve genotype. Above, Figure 4.11b shows the pitches of the second violin and viola outlining separate segments of the same fixed-register, pitch superstructure that provided the framework for the first 8 measures of the Nocturne (see Figures 4.2 and 4.3). Instead, this transformation results from the transference of four separate phenotypical parameters, each connected to separate musical objects that appear earlier in *Ainsi la nuit*, as detailed below.

Timbral Transference

Three of the four transfers that affect this transformation involve the parameter of timbre. The first of the transferred timbres is a measured tremolo. This specific bowing, along with the specific timbre that it creates, initially appears in Parenthese 2 as part of the object that is shown in Figure 4.12a. Also, note the different pitch-structures (Figure 4.12b). As discussed in the paragraph above, the genotype of the object in Figure 4.12a does not transfer to the second violin and viola in *Temps suspendu*, which maintain the Nocturne’s pitch superstructure.

Fig. 4.12 Timbre one: measured tremolo in Parenthese 2 (one before Reh. B).



A derivative form of the object above appears briefly in the following movement, Litanies (Figure 4.13, below). The appearance in Litanies is indeed fleeting, but it is also worth noting, as at this point the derivative version of the object in Figure 4.12 (above) inherits the second of the timbral characteristics that will eventually transfer to the second violin and viola in *Temps suspendu*: a *sul ponticello* bow placement.¹² The linking of a *sul ponticello* placement to an *unmeasured tremolo* bowing appears at numerous points throughout the course of *Ainsi la nuit*, but its initial appearance can be traced back to a similar parametric coupling in the string quartet's Introduction. The instantiation in Litanies (Figure 4.13) could then be viewed as having resulted from the combination of two separate timbres: a coupled *sul ponticello* and *unmeasured tremolo* bowing, transferred from the Introduction (Tremolo Object A); and a *measured tremolo*, transferred from the object that appears in Parenthese 2 (Tremolo Object B).

Fig. 4.13 Timbre two: coupling of *unmeasured tremolo* and *sul ponticello* bow placement in Litanies (one after Reh. 13).

The figure displays a musical score for a section of a string quartet. It includes an introduction, two measures before Rehearsal C, and a section labeled 'Tremolo Object A'. The score features four staves, each with a different instrument. The first staff has a 'sul pont. bowing' instruction. The second staff has a 'pp' dynamic marking. The third staff has a 'pp' dynamic marking. The fourth staff has a 'pp' dynamic marking. The score also includes a section labeled 'Parenthese 2, one before Rehearsal B' with 'Tremolo Object B'. This section has a 'f' dynamic marking. The score includes various musical notations, including notes, rests, and bowing instructions.

The third and final of the transferred timbres that affects the second violin and viola in *Temps suspendu* also originates in the Introduction and is connected to the melodic

¹² Along with the timbral transfer of the tremolo and *sul ponticello* bowings there is the transfer of the dynamic marking *pp* between objects (shown in Figure 4.13). While this is definitely another form of parametric transference, and while there is a timbral element to dynamic markings, I would not necessarily classify it as timbral.

contour of that movement's opening measures. In Figures 4.14a-b we see that as the melodic contour in the second measure ascends, the notes are bowed (*modo ordinario*), and as it descends Dutilleux switches to *pizzicato*. While this particular timbral shift between an ascending gesture and the subsequent descending gesture does not feature in any of the other preceding examples that involve the *sul ponticello* or tremolo bowing, it does transfer directly to the gestures played by the second violin and viola in Temps suspendu.

Fig. 4.14 Timbre three: ascending *modo ordinario* bowing and descending *pizzicato* in the Introduction (Reh. A-B), and in Temps suspendu (one before Reh. 26).

a)

b)

Figure 4.15 then shows how each of the preceding timbral transfers—the coupled *sul ponticello* bowing and unmeasured tremolo from Tremolo Object A and the measured tremolo from Tremolo Object B, which combined in Tremolo Object C, as well as the ascending arco/descending pizzicato of the Introduction's opening measures—all converge into a single new timbre, which is expressed phenotypically by the music of the second violin and viola in Temps Suspendu.

Fig. 4.15 Transference and convergence of previous timbres into a new, single timbre in Temps suspendu (one before Reh. 26).

The diagram illustrates the transference and convergence of previous timbres into a new, single timbre in Temps suspendu. It features four boxes representing different musical objects and their transitions:

- Intro, two before Rehearsal C:** Contains "tremolo object a" with a musical staff and a *pp* dynamic marking.
- Parenthese 2, one before Rehearsal B:** Contains "tremolo object b" with a musical staff, a *f* dynamic marking, and a *loco* marking.
- Introduction, two before Rehearsal B:** Contains "arco/pizz object" with a musical staff, a *pp* dynamic marking, and a *f* dynamic marking.
- Litanies, one after Rehearsal 13:** Contains "tremolo object c" with a musical staff, a *pp* dynamic marking, and a *Perdendosi* marking.

Arrows indicate the flow of these elements into the main section:

- An arrow labeled "sul pont. bowing" points from "tremolo object a" to the main section.
- An arrow labeled "measured trem." points from "tremolo object b" to the main section.
- An arrow labeled "arco ascending/pizz. descending" points from "arco/pizz object" to the main section.
- An arrow labeled "sul pont./measured trem." points from "tremolo object c" to the main section.

The main section, **Temps suspendu, one before Rehearsal 26**, shows two staves of music. The top staff includes markings for *Pizz*, *arco*, and *pp*. The bottom staff includes markings for *Pizz*, *arco*, and *pp*.

The fourth parametric transfer, which was mentioned at the beginning of this section, and, until now, had only been touched upon in relation to Figure 4.14, is melodic contour. Because it presents its own unique series of transfers before joining with the two timbral parameters in Temps suspendu, it will be discussed separately below.

Contour Transfer

There are two components—two “sub-parameters”—that comprise the melodic contour that ends up organizing the shape of the second violin and viola in Temps suspendu. The first of these exists on a local level and initially can be characterized as a simple “up and down,” or arch-like, motion. The second of the sub-parameters has to do with presentation—or rather, with phrasing. In this case the overall shape of the phrasing

that is transferred between objects, like the arch-like contour of the object, is palindromic, although the palindromic shape of this contour is rarely perfect.¹³

Ex. 4.9 Dutilleux: *Ainsi la nuit* (Introduction, Reh. A-B).

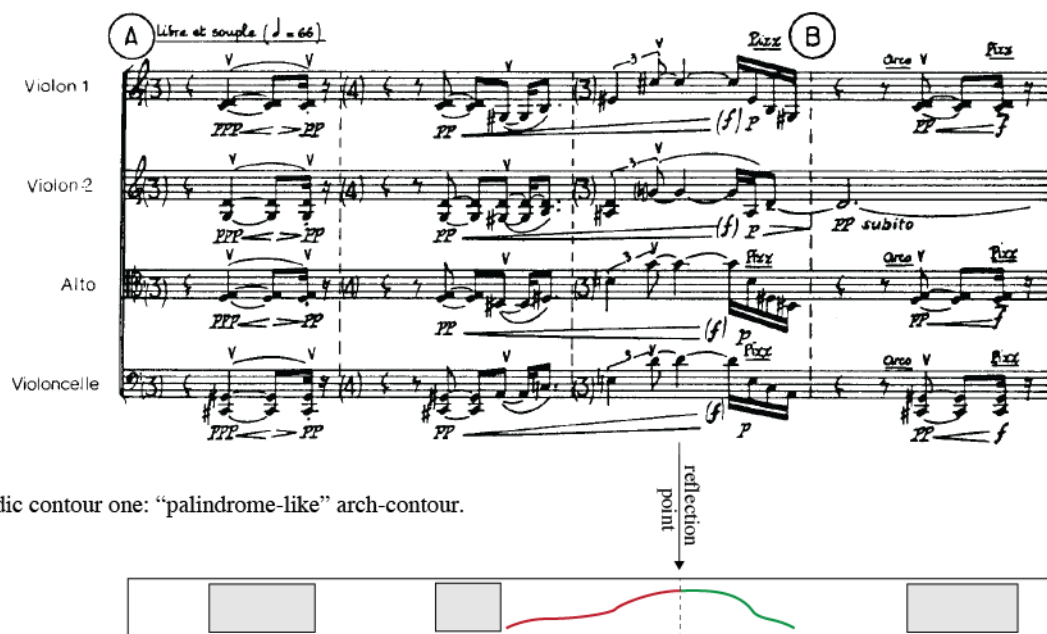


Fig. 4.16 Melodic contour one: “palindrome-like” arch-contour.

Like the second and third examples of timbral transference (see Figures 4.13 and 4.14), the coupling of the contour sub-parameters can also be traced back to the string quartet’s Introduction. Above, Example 4.9 shows the movement’s first four measures. Figure 4.16 then shows the overall phrase shape of these measures, as well as the initial arch-like melodic contour at the center of the opening gesture. This gesture is clearly not a perfect palindrome; rather it could be described as “palindrome-like”—in fact the only portion of this gesture that is truly palindromic is that of the pitch-structure. The phenotypical parameters that define the surface of the central gesture—timbre, duration, contour—could better be described as “lopsided.”

¹³ This type of intentionally imperfect mirror writing is a characteristic of Dutilleux’s compositional style and will be discussed at greater length in Chapter 7.

In the example below, Dutilleux transfers the Introduction's palindromic phrasing to the second statement of the viola's line at Rehearsal 5 of the Nocturne. However, as a result of a structural segmentation and recombination (see Figure 4.6b), the melodic contour of the statement has transformed from a simple arch-like up and down, to a slightly more complex contour. In Figure 4.17 we can see that this new contour still retains the basic arch-shape of the original, but it could now be described as a “stepped” arch-contour.

Ex. 4.10 Dutilleux: *Ainsi la nuit* (Nocturne, Viola, Reh. 5).

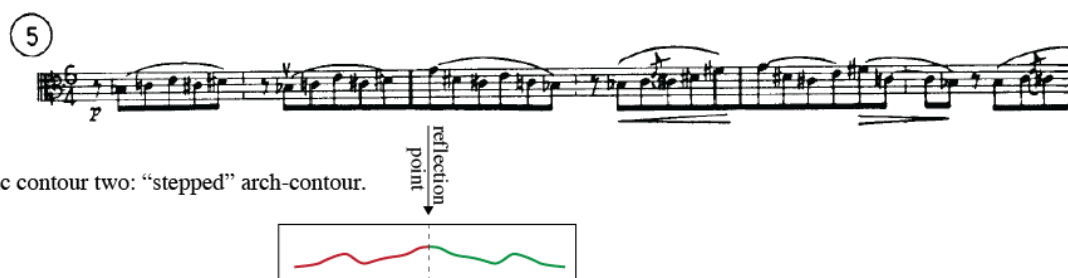


Fig. 4.17 Melodic contour two: “stepped” arch-contour.

The concept of segmentation and recombination is then applied to the melodic contour, dividing the Introduction's contour into ascending and descending halves and stratifying these halves according to register: descending in the extreme upper register, ascending in the low register. Each ascending statement overlaps with the preceding, descending statement, and vice-versa, creating several vertical reflection points, as well as a horizontal reflection point (and meeting point) in the middle of the gamut (Example 4.11a and Figure 4.18a). Dutilleux then further expands upon the idea of contour division and vertical stratification by returning to, and applying these techniques to, the “stepped” transformation of the melodic contour—the divided ascending and descending segments creating a complex series of vertical reflection points with each overlapping statement (Example 4.11b and Figure 4.18b).

Ex. 4.11a Dutilleux: *Ainsi la nuit* (Nocturne, mm 17-19)

7 *Plus animé*

5/4

f *pp* *p* *f*

arco *legatissimo* *pp* *f* *p* *f*

f *legatissimo* *pp* *f* *p* *f*

mf *pp* *f* *mf* *p* *f*

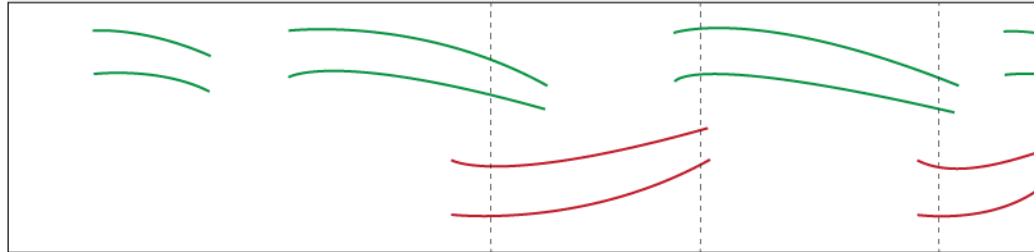
pizz *p* *arco* *legatissimo* *pizz* *p*

reflection point

reflection point

reflection point

Fig. 4.18a: Melodic contour three: “overlapping” ascending and descending contours.



Ex. 4.11b Dutilleux: *Ainsi la nuit* (Nocturne, mm 25-26)

9 *A Tempo*

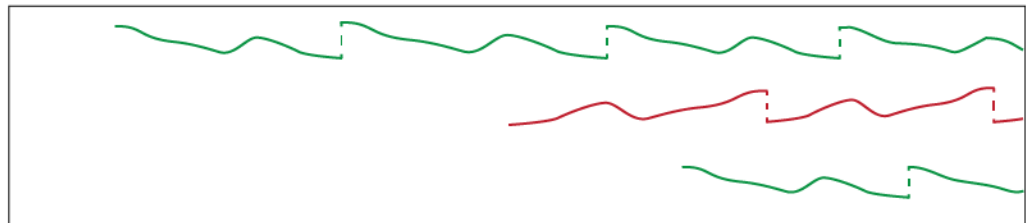
6/4

pp *f* *pp* *f*

pizz *arco* *p* *p*

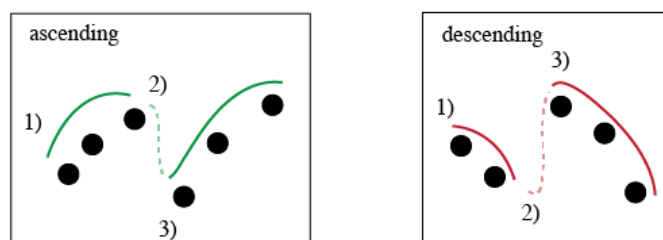
multiple, overlapping reflection points

Fig. 4.18b Melodic contour four: “overlapping” and “stepped” arch-contours.



Example 4.12 (following page) returns to the previously-discussed object that appears in Parenthese 2 and eventually transfers its measured tremolo bowing to the second violin and viola in *Temps suspendu* (see Figure 4.12a, page 68). The melodic contour of this object is a derivative form of the stepped contour that first appeared in the Nocturne at Rehearsal 5 (see Example 4.10 and Figure 4.17).

Figure 4.19 General scheme of ascending and descending contour patterns that occur throughout *Ainsi la nuit*.



While the shapes of the two separate objects may at first glance appear quite different, conceptually they are very similar. For example, the contour that is generated by the aforementioned structural segmentation and recombination of the viola's line at Rehearsal 5 of the Nocturne could be described generally as: (1) motion in a single direction that spans two to three notes is (2) followed by a leap in the other direction that is (usually) larger than the preceding interval, which is then (3) followed by a return to the original direction and the two- to three-note span (see Figure 4.19, above). The object in Parenthese 2 can then be viewed as an intervallically-expanded version of the descending half of the contour that previously appeared in the Nocturne (Figure 4.20a, below). Furthermore, the larger-scale mirror phrasing is also maintained in Parenthese 2, a reflected and ascending version of the gesture appearing in the following measure one octave lower (Figures 4.20a and b, below).

Ex. 4.12 Dutilleux: *Ainsi la nuit* (Parenthese 2, one before Reh. B).

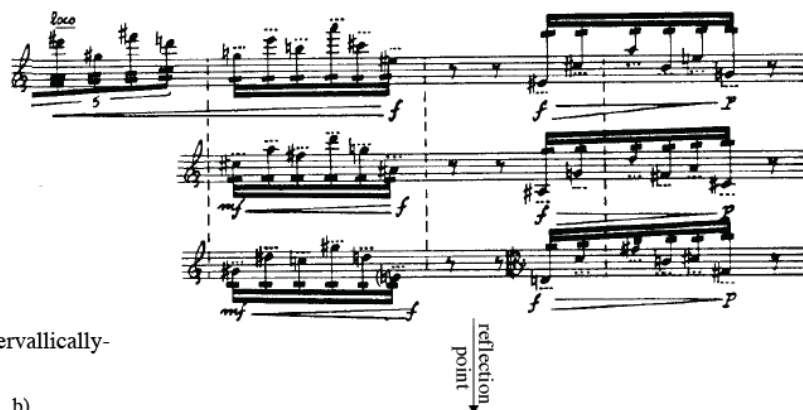
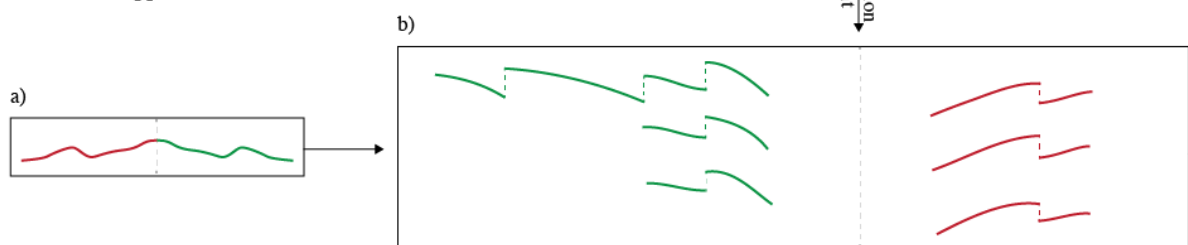


Fig. 4.20 Melodic contour five: reversed, “intervallically-expanded” and “stepped” arch-contour.



Arriving back at the example from Rehearsal 25 of *Temps suspendu*, it becomes clear that the melodic contours of the second violin and viola are descendants of the various contour instantiations that preceded them. In fact all of the characteristics that connected each instantiation—an ascending and descending arch-like contour (whether stepped or otherwise) coupled with some form of imperfect symmetry—can be found in the example below.

Ex. 4.13 Dutilleux: *Ainsi la nuit* (*Temps suspendu*, Violin II, mm 17-18).

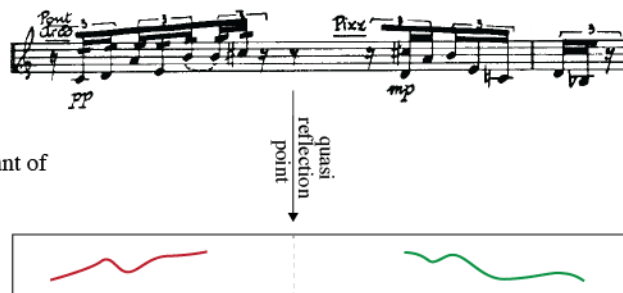


Fig. 4.21 Melodic contour six: descendant of previous arch-contour instantiations.

Below, Figure 4.22 provides a side-by-side comparison of the music of the second violin and viola in both the Nocturne (mm. 4-6) and Temps suspendu (mm. 17-19). Remember that, as discussed at the beginning of this section (see Figure 4.11, page 67), the antiphonal dialog, which unfolded across the Nocturne's opening measures, returns in Temps suspendu at Rehearsal 25. Remember also, that this return was confined to the first violin and cello, the second violin and viola's music having transformed through the series of parametric transfers that were discussed over the course of the last few pages. And indeed, Figures 4.22a and c show that on the surface, the second violin and viola's music in these sections is drastically different—in other words, their music in Temps suspendu hardly resembles their earlier music in the Nocturne. Nevertheless, the music of the second violin and viola in these sections *are the same* genotypically. Figures 4.22b and d show that they are both comprised of the same genotype—of the pitch superstructure that was presented at the beginning of this chapter (see Figures 4.2 and 4.3, on pages 53 and 56). The transformation in Temps suspendu is then solely a phenotypical one; a transformation that phenotypically expresses a slightly different segment of the pitch superstructure (it is worth noting that neither section expresses the pitch superstructure's G4), and a transformation that expresses, and is characterized by, different timbres and melodic contours. In short, the music of the second violin and the viola in the Nocturne and in Temps suspendu are separate phenotypical expressions of a single genotype—the pitch superstructure—the phenotypical expression in Temps suspendu resulting from transference of different surface traits that were initially associated with the various additional surface parameters (phenotypes) and pitch-structures (genotypes) that comprised other prior and individual objects and sections.

Fig. 4.22 Comparison of the second violin's and viola's phenotypes and expressed segments of the pitch superstructure in the Nocturne (one before Reh. 2) and in Temps suspendu (one before Reh. 26).

a) Nocturne, one before Rehearsal 2

“anomalous tetrachord”

b) expressed segments of the pitch superstructure

vln. II vln. II

vla. vla.

c) Temps suspendu, one before Rehearsal 26

(Fig. 4.22 continued)

The figure consists of two parts. On the left is a musical score for a string quartet, starting at rehearsal mark 27. It shows staves for Violin I, Violin II, Viola, and Cello/Double Bass. Dynamics include *mp*, *p*, and *mf*. On the right, labeled 'd) expressed segments of the pitch superstructure', is a diagram showing two segments of a melodic line. The first segment is labeled 'vln. II' and the second is also labeled 'vln. II'. Below the first segment is the label 'vla.'.

Processes of Parametric Transformation in *Ainsi la nuit*

The preceding examples also illustrate the transformation of phenotypical parameters as they transfer from object to object. Below, Figure 4.23 shows the transformation of the melodic contour that is the focus of Examples 4.9-4.13, by comparing the melodic contour as it originally appeared in the Introduction of the string quartet, and as it appears in *Temps suspendu*, in its final and completely transformed state.

Fig. 4.23 Transformation of contours between the opening line of the Introduction and its reappearance in *Temps suspendu*.

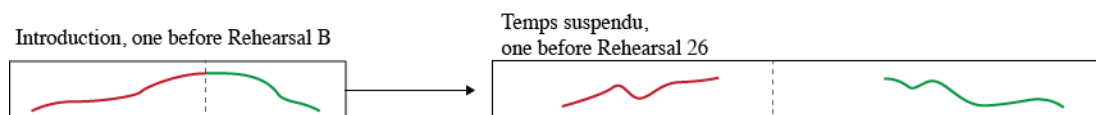


Figure 4.24a (below) not only explores further the processes of parametric transference, but also focuses on parametric transformation by following the metamorphosis of three related musical objects, which are played by the second violin, and which initially appear in the Nocturne between rehearsals 1 and 3.

Fig. 4.24 Initial appearances of the jeté object in *Ainsi la nuit* (Nocturne, Violin II, one before Reh. 2-3).

a.)

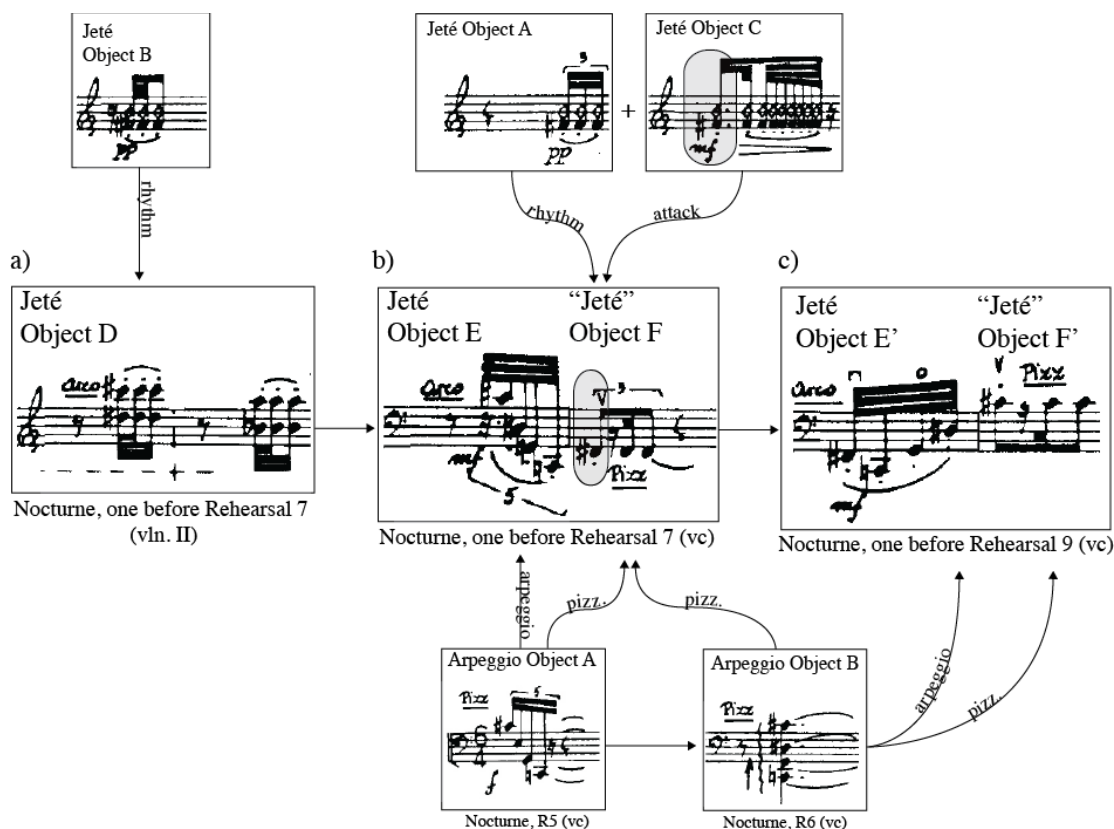
b.)

Even though the objects are clearly related by pitch, register, timbre (artificial harmonic) and (to some degree) rhythmic contour, they are labeled “Jeté Objects” A, B and C (Figure 4.24b) for two reasons: because it is *this* phenotypical parameter—the sound of the “bouncing bow”—that most clearly defines and connects the three initial objects, and because it is this specific transformation—the transformation of the jeté bowing—that we will follow as that parameter is transferred from object to object (as opposed to any of the other “surface traits” that combine to characterize each object, and which could then branch off and become the subject of a separate series of transfers and transformations).

Figure 4.25 shows how phenotypical parameters from each of the original jeté objects are either transferred to a new object, or combined with another object to create a new and transformed object. Jeté Object D, for example, results when the rhythmic contour and bowing that characterized Jeté Object B are transferred to a new pitch structure (Figure 4.25a). Jeté Object E results when an arpeggiated pitch structure (Arpeggio Object A) is combined with the bowing technique and 32nd notes that characterized Jeté Objects B

and D (Figure 4.25b). “Jeté” Object F results from the combination of the pizzicato timbre of Arpeggio Objects A and B, the rhythmic profile of Jeté Object A (triplet), and the attack of Jeté Object C (Figure 4.25b). These two objects—Jeté Objects E and F—are then further transformed: Jeté Object E’ by rearranging pitches and altering rhythmic contour, “Jeté” Object F’ through transposition (Figure 4.25c).¹⁴

Fig. 4.25 Initial transformations of Jeté Objects A, B and C.



Further transformations are outlined below in Figures 4.26a-d. Perhaps the most interesting of these transformations results from a combination of “Jeté” Object F’, and the three initial jeté objects: A, B and C. This new object—“Jeté” Object H—transfers the

¹⁴ I realize that “Jeté” Object F, being partially characterized by a pizzicato, at this point in the piece does not really connect to the “bouncing bow” idea, and therefore, the label does not really fit (this is the reason for the quotations). Nevertheless, as will be momentarily shown, Dutilleux does eventually extended the idea of the “bouncing bow” to an object that is characterized by its pizzicato-ness.

While the remaining jeté objects leave *pizzicato* behind, the increased length of “Jeté” Object H is maintained, even increased, with subsequent transformations (although with Jeté Object I (below), increased length results more from the composite created by the different instruments overlapping). Figures 4.27a and b present the penultimate and final transformations of the jeté object.

Fig. 4.27 Final transformations of the jeté object.

The diagram illustrates the final transformations of the jeté object. It features several musical components and their relationships:

- Jeté Object C**: A small musical fragment in the upper left.
- “Jeté” Object H**: A musical fragment in the upper middle, marked *sf* and *trist.* (tristesse).
- Introduction, opening measure “Ainsi Chord”**: A musical fragment in the upper right, marked *pp* and *pp*.
- Jeté Object I**: A large musical fragment in the lower left, marked *f* and *pp*. It is labeled “Temps suspendu, 3 after R30”.
- Jeté Object J**: A large musical fragment in the lower right, marked *ff* and *pp*. It is labeled “Temps suspendu, final measures”.

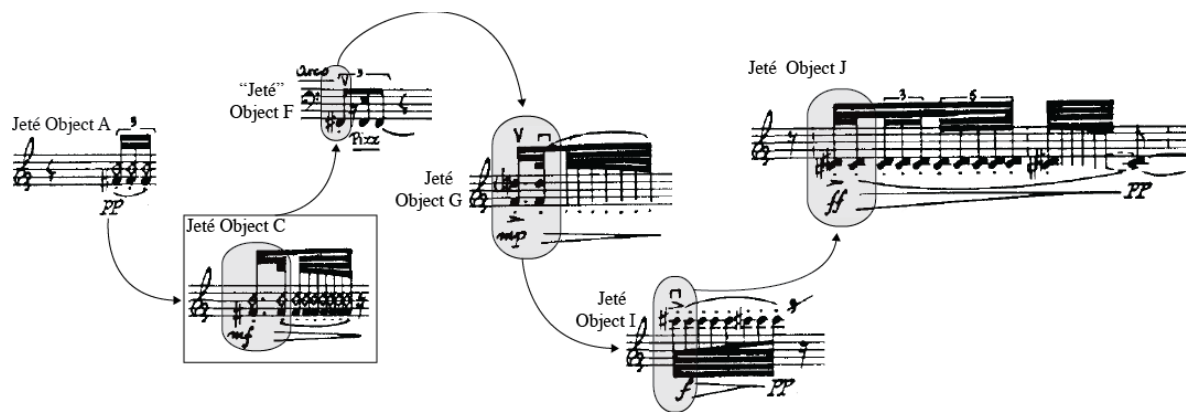
Arrows indicate the flow of information between these components:

- An arrow labeled *rhythm* points from “Jeté” Object H to Jeté Object I.
- An arrow labeled *pitch content* points from the “Ainsi Chord” introduction to Jeté Object J.
- A plus sign (+) is placed between “Jeté” Object H and the “Ainsi Chord” introduction.

Finally, as is the case with so many of Dutilleux’s objects, by introducing a slightly different order of transformations—or rather, by following a different branch—it becomes

possible to trace the transference and transformation of a separate parameter. For example, by removing “Jeté” Object H from the preceding example and adding “Jeté” Object F, we can follow the transformation of the attack that initiates the gesture associated with Jeté Object C, which starts as a *mezzo forte* and *staccato* up-bow, and ends as a *fortissimo* and *marcato* down-bow (below). Granted, the progression is not exactly linear, but the combination of articulation and dynamic marking does generally progress toward loudness.¹⁵

Fig. 4.28 Transformation of the initial articulation (attack) of Jeté Object C.



Progressive Growth Applied to Higher-Level Structures in *Ainsi la Nuit*

If we step back a bit, and look at the interaction of separate musical objects within a section, it is possible to view several of the processes of progressive growth, both structural and parametric, at work simultaneously.

¹⁵ Notice too the transfer of the hairpin, here again is an example of Dutilleux transferring a phenotypical parameter between objects.

Fig. 4.29 Simultaneous application of structural and parametric processes of progressive growth in the Nocturne (Reh. 5-6).

The figure displays a musical score for measures 5 and 6, annotated with structural and parametric processes of progressive growth. The score is written in 6/8 time and includes various musical objects and cycles.

Measure 5:

- Staff 1:** Starts with a tempo marking "un peu moins lent, $\text{♩} = 72$ ". It features a "1 + 2 Cycle (plus 1)" and a "1 + 2 Cycle" for "Harmonic Object A''". A "1 Cycle" for "Harm. Ob. C'" is also present, with a note "leads to Grace Note Object A".
- Staff 2:** Contains a "1 + 2 Cycle (plus 1)" and a "1 + 2 Cycle" for "Harmonic Object A".
- Staff 3:** Features a "2 Cycle" and a "2 Cycle" for "Harmonic Object A'".
- Staff 4:** Includes a "Pizz. Arpeggio Object A" (1 + 2 Cycle), "Arco Harmonic Object A" (2 Cycle), "Harmonic Object A'" (2 Cycle), "Harm. Ob. B" (2 Cycle), "Arpeggio Object B" (1 + 2 Cycle), and "Harmonic Object A" (2 Cycle implied).

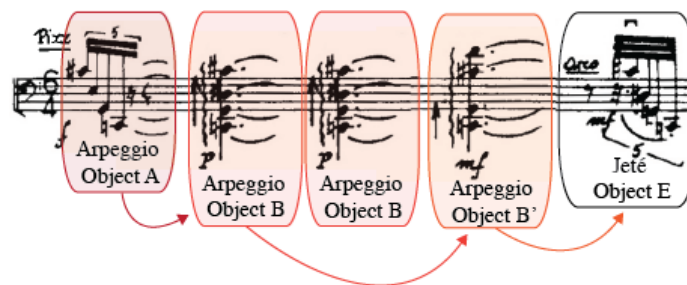
Measure 6:

- Staff 1:** Features a "1 Cycle" for "Grace Note Object A", "Harm. Ob. C'" (2 Cycle implied), "Grace Note Object A'" (2 Cycle implied), "Harm. Ob. C'" (1 + 2 Cycle or 2 Cycle), and "Jeté Ob. D".
- Staff 2:** Includes a "1 + 2 Cycle" for "Pizz. Ob. A", "Grace Note Object A'" (1 Cycle), "Pizz. Object A" (2 Cycle), "Jeté Ob. D" (1 + 2 Cycle), and "Pizz. Object A" (1 + 2 Cycle).
- Staff 3:** Features "Arco Harmonic Object A'" (2 Cycle), "Harmonic Object B'" (2 Cycle), "Pizz. Arpeggio Object B'" (1 + 2 Cycle), and "Jeté Object E".

Above, Figure 4.29 returns to the previous analysis of musical object genotypes presented earlier with Figure 4.7 and Example 4.7 (see pages 61 and 62). By adding

another layer of analysis, which looks at the transference and transformation of phenotypes between those same objects, Figure 4.29 shows that, not only does Dutilleux apply a continual process of compound-rotation across multiple structural levels, but he phenotypically transforms each object as it is both internally “rotated” and externally “rotated” with other objects. Look, for example, to Arpeggio Object A (Figure 4.30, below). With the exception of the third iteration of this object (Arpeggio Object B), which repeats the preceding iteration, every statement is slightly altered, either by altering the object’s expression of phenotypical traits, by presenting a different segment of the underlying genotype, or both. This transformation finally results in a new object—Jeté Object E—by combining the phenotypical traits of Jeté Object D with the genotype (pitch structure) of the preceding objects. Again, with each internal permutation of component genotypical and phenotypical elements, the objects below continue their process of external compound-rotation with other objects.

Fig. 4.30 Statements and transformation of the Arpeggio Object with a final transformation into Jeté Object E.



If we look at Harmonic Object A, we can also follow the transfer of phenotypical parameters between pitch structures. Initially, Harmonic Object A appears in the foreground, as the cello’s half of the antiphonal dialog that characterizes the opening measures of the Nocturne (Figure 4.31a, below). After a brief interruption that begins at Rehearsal 3, the gesture returns and continues in the cello at Rehearsal 5. However, at this

point in the movement, as it falls into the background—that is, as it becomes an accompanimental texture—it begins to transform. The first transformation of Harmonic Object A results from a rhythmic diminution (into 32nd notes) of the object's original pitch structure—a 2 Cycle trichord (024). The parameters that define this transformation, now labeled Harmonic Object B, are then transferred to a 1 Cycle, creating Harmonic Object C, which appears first in Violin II and then in Violin I (Figure 4.31b). Notice too that while Harmonic Object B maintains pitch order, and therefore melodic contour, once its phenotypical parameters are transferred to Harmonic Object C, one of the defining characteristics of that object becomes the continual internal rearranging of 1 Cycle pitches with each statement of the object (Figure 4.31b).

Fig. 4.31 Simultaneous parametric transference from, and structural transformation of, Harmonic Object A (a) Cello, Nocturne, mm 1-3, b) Violin I and Violin II, Reh. 5).

a)

2 Cycle (024)

b)

1 Cycle
Harm.
Ob. C'

1 Cycle

leads to Grace
Note Object A

(2 Cycle
implied)

1 + 2 Cycle

2 Cycle

Harmonic
Object A

Harmonic
Object A'

Harm.
Ob. B

Harmonic
Object C

Harmonic
Object C''

Harmonic
Object C'''

Composers often connect sections, either adjacent to one another or across long expanses, by creating pitch relationships. This is, for example, one of the fundamental ways in which sonata form creates a coherent, overarching structure. As will be discussed in the chapter on referential devices, Dutilleux does this as well; however, just as he will separate, transfer and transform the phenotypical parameters (i.e.: non-pitch) of an individual object, so too will he connect disparate sections of a work *phenotypically* as opposed to *genotypically*.

Fig. 4.32 Antiphonal dialog, instantiation one (Nocturne, Violin I and Cello, mm 1-3).

phenotype: antiphonal dialog
Assez lent ($\sigma = 60$)

genotype: complimentary 2 Cycles
(W.T. subsets)

(024) (024)

Violin I vc.

The figure above presents the Nocturne’s “antiphonal dialog” that was discussed with regard to small-scale compound-rotation and the continual rearranging of individual pitches (see Examples 4.3 and 4.4, on pages 56 and 57). As previously mentioned, the objects that comprised this section were themselves comprised, genotypically, of non-duplicative 2 Cycle trichords, and phenotypically of a pianissimo dynamic and hairpin gesture. Taken as a whole, the section is labeled as “antiphonal” because of the back-and-forth interplay that takes place as each instrument presents the different structural

components (2 Cycle pitches) of their respective objects. The antiphonal dialog could then be regarded as the primary phenotypical trait of the *section*. And, it is *this* surface trait, as opposed to genotype (i.e.: a specific pitch structure), which becomes the primary means through which Dutilleux connects several disparate sections of *Ainsi la nuit*.

Below, Figure 4.33 presents the next section of the Nocturne. Notice that while most of the phenotypical parameters that characterized the objects in Figure 4.32 have disappeared—that is, vertical structures have replaced individual notes, extreme dynamic envelopes have replaced the pianissimo/hairpin gesture—the antiphonal quality of the opening section of the Nocturne remains. Additionally, while Dutilleux initially continues to juxtapose complementary 2 Cycle subsets (in this case, tetrachords), he quickly switches, by using common tones, to a new 7 Cycle (or 5 Cycle) pitch structure.

Fig. 4.33 Antiphonal dialog, instantiation two (Nocturne, mm 10-11).

phenotype: antiphonal dialog
applied to vertical structures

two genotypes:
1) complimentary 2 Cycles (W.T. subsets)
2) complementary 5 or 7 Cycles (Pent. subsets)

The next figure presents the second half of Parenthese 1. Here, Dutilleux has brought back many of the phenotypical parameters that characterized the objects in the opening measures of the Nocturne—pianissimo dynamic, combination of harmonics and *ordinario* playing. However, the section is comprised, structurally, of three separate

genotypes—4 Cycle, 3 Cycle and 5 Cycle—all of which are connected by a common G#, before the 5 Cycle begins to expand through the gamut. Again, the primary connection between sections is phenotypical—the antiphonal dialog—rather than genotypical.

Fig. 4.34 Antiphonal dialog, instantiation three (Parenthese 1, two beats before Reh. B).

phenotype: antiphonal dialog applied to overlapping vertical structures

4 Cycle 3 Cycle expanding 5 Cycle

multiple genotypes: each comprised of a different interval-cycle

Finally, Figures 4.35a-c provide three additional sectional instantiations of the antiphonal dialog phenotype. As before, each instantiation is comprised of a unique genotype or combination of genotypes. Perhaps most importantly, even though the internal surface traits of each section can be quite different, on a larger scale—at the sectional level—each instantiation is connected to others, across the length of the string quartet, because of the way it is presented *phenotypically*—as an antiphonal dialog—as opposed to *genotypically*—as a structural pitch relationship.

Fig. 4.35 Antiphonal dialog, instantiations four, five and six (a) Miroir d'espace, Reh. 1, b) Parenthese 3, Reh. A, c) Litanies 2, two before Reh. 7).

a)

phenotype: antiphonal dialog
between horizontal structures

genotype:
composite 1+2 Cycle
(Oct. 0 subset)

(0,2,3,6)

b)

phenotype: antiphonal dialog and derived, composite horizontal melody

genotype: 1 Cycle (chromatic subset)

(0,1,2,3,4)

c)

phenotype: antiphonal dialog, composite horizontal
melody and overlapping vertical pitch structures

two genotypes:

1) 1+3 Cycle (hexatonic scale)

2) 1 Cycle (expanded chromatic subset)

Formal/Temporal Types in *Ainsi la nuit*

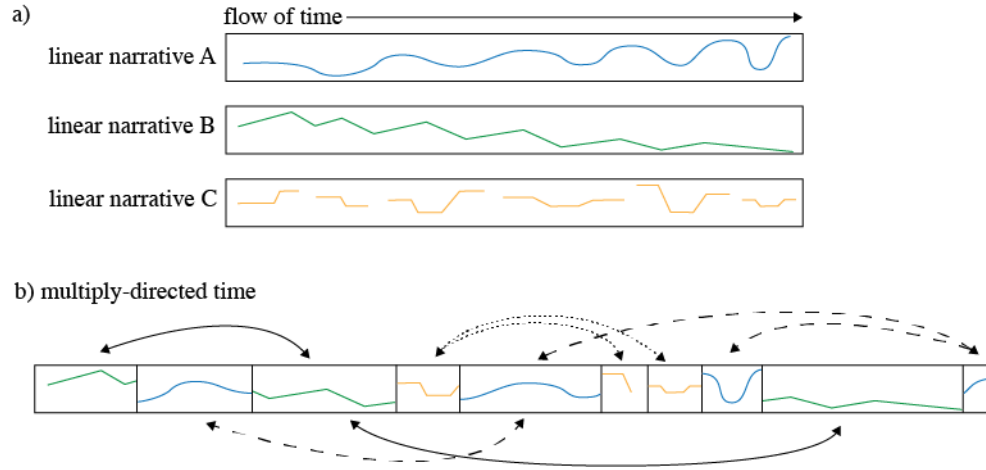
If we return to the idea that the creation of musical form is fundamentally the process of organizing the narrative time-space within a work—of creating a temporal architecture—then there are two formal/temporal types that best describe the creation of form in *Ainsi la nuit*.

The first, referred to as *multiply-directed time* by Jonathan Kramer, is a formal type in which several unique, yet “simultaneous,” linear musical narratives are segmented into delimited sound events. These events are then combined and rearranged; creating a new and distinct narrative continuum that feels temporally disjunct.¹⁶ In other words, multiply-directed time could be described as a “temporally jumbled presentation of gestures [or sections] that might (in a different context) have clear, *linear* temporal implications.”¹⁷ Furthermore, works in multiply-directed time do not merely point the listener’s mind forward in anticipation of a linear continuation or resolution, or backward toward the previous gesture or section. Rather, as the various and interrupted gestures and sections build up throughout the course of the work, so too do the anticipations and associations, creating a dense web of temporal implications that project in *multiple directions*. Below, Figure 4.36 provides a visual representation of multiply-directed time.

¹⁶ Jonathan D Kramer, *The Time of Music* (New York: Schirmer Books, 1988), 46-49.

¹⁷ Lefkowitz, *Music Theory: Syntax, Function and Form*, Chapter 16.

Fig. 4.36 Creation of multiply-directed time from three distinct “linear narratives.”



The second is a formal/temporal type that Kramer refers to as *moment time*. Moment time, as Kramer describes it, is non-linear time.¹⁸ There is no “from here to there;” instead, works that exist in moment time, like works that exist in multiply-directed time, generally present as a series of discontinuous, and discrete “moments.” The difference between the two formal/temporal types is that in moment time one moment does not exist as the linear continuation of another previous moment, or imply another moment at a different point in time. As Kramer writes “there is no linear logic that connects moments.”¹⁹ Additionally, because there is no linear continuation of any particular “moment,” moment time and pieces in moment form, unlike pieces in multiply-directed time, are basically static—or rather, they generally present as a series of encapsulated and static moments, ostensibly coming at the listener in random order, starting rather than beginning and ceasing rather than ending.²⁰

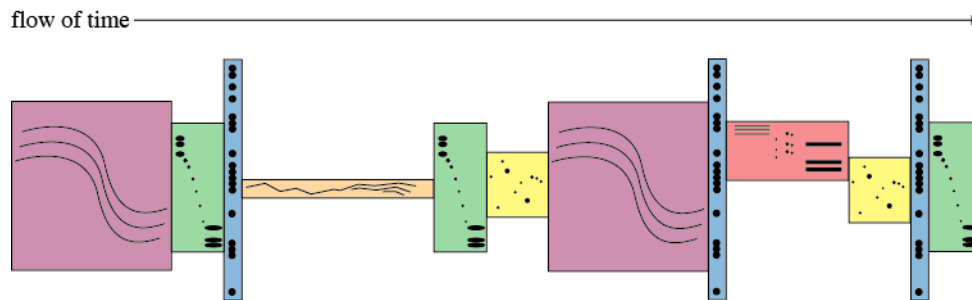
¹⁸ Jonathan D. Kramer, “New Temporalities in Music,” *Critical Inquiry* 7, 3 (Spring, 1981): 546-547.

¹⁹ *Ibid.*, 547.

²⁰ *Ibid.*, 547.

This does not mean works in moment time do not contain repetition. In fact, one common feature of moment form is that sections may well reappear—or rather, moments are rearranged, creating a series of unique sectional permutations. It is important to note however, that with each new arrangement, the *static* reiteration of sections is important to maintaining the feel of moment form within a work. This is because if the music contained within a moment were to develop with each instantiation of that moment, a linear connection could be created between successive moments, essentially pushing the form away from moment time and toward the interrupted linearity associated with multiply-directed time. A visual representation of one possible expression of moment form is provided in the figure below.²¹

Fig. 4.37 Moment form as a series of discrete, unrelated and rearranged “moments.”²²



²¹ Kramer’s term “moment time” is derived from Karlheinz Stockhausen’s discussions of what he termed “moment form.” The following excerpt, in which he discusses his concept of moment form, comes from Stockhausen’s lecture at Darmstadt in 1963: “Every present moment counts, as well as no moment at all; a given moment is not merely regarded as the consequence of the previous one and the prelude to the coming one, but as something individual, independent and centered in itself, capable of existing on its own. An instant does not need to be just a particle of measured duration. This concentration on the present moment – on every present moment – can make a vertical cut, as it were across horizontal time perception, extending out to a timelessness I call eternity. This is not an eternity that begins at the end of time, but an eternity that is present in every moment.” Karlheinz Stockhausen, “Momentform,” in *Texte zur elektronischen und instrumentalen Musik*, vol. 1, trans. Brad Absetz (Cologne: DuMont, 1963): 199. Also, cited in Kramer, *The Time of Music*, 201.

²² It is important to note that, while moment form pieces often contain a later repetition of moments, this is not necessary. A moment form piece can also exist simply as a series of unrelated moments, which follow one after the other.

Between Multiply-Directed Time and Moment Time

Formally, *Ainsi la nuit* exists in a gray area somewhere between the two formal types, and throughout the course of the work, the various sections, moments, and/or sound events alternately exhibit characteristics of either multiply-directed time or moment time. We could also look at it this way: if “pure” multiply-directed time and “pure” moment time exist on two ends of a spectrum that represents different states of discontinuous and disordered time, Dutilleux’s formal language in *Ainsi la nuit* could be viewed as existing between the two ends, with any given section leaning, to varying degrees, toward one end or the other.

Some sections in *Ainsi la nuit*, for example, maintain the vast majority of parameters between instantiations, and reappear in the “same basic guise.” This type of section (as described earlier) would fall into the category of referential devices and exists in a state close to “pure” moment—that is, non-linear—time. Never progressing, these sections appear unannounced, and disappear just as suddenly, seemingly unrelated to the events around them.

Additionally, as we have seen throughout the course of the previous pages, one of the techniques that Dutilleux continually utilizes, and that we can associate with moment form, is that of compound-rotation. As an element of one’s formal language, the concept of compound-rotation and the subsequent series of unordered permutations is most closely linked to Igor Stravinsky, and is perhaps exemplified best by his 1920 work, *Symphonies of*

Wind Instruments, which has been referred to as the first moment form piece.^{23, 24} In fact, in comparing Stravinsky's *Symphonies of Wind Instruments* to Dutilleux's *Ainsi la nuit*, clear formal similarities exist on the surface. Both works are comprised of short sections, which reappear and are continuously rearranged, creating a large-scale mosaic of sorts. However, the sections that comprise Stravinsky's *Symphonies of Wind Instruments* are internally static—that is, the genotypical and phenotypical parameters that define each section, or moment, remain stable from one instantiation to the next—like the 18th and 19th century motif and theme, their appearance generally remains unchanged.²⁵ Below, based on elements from the preceding figure, Figures 4.38a-c provide a visual representation for the type of conceptual compound-rotation described with regard to the sections in Stravinsky's *Symphonies of Wind Instruments*. Notice that each compound-rotation of moments creates a new form, but that none of the internal parameters, which define the form of an individual moment, ever change.²⁶

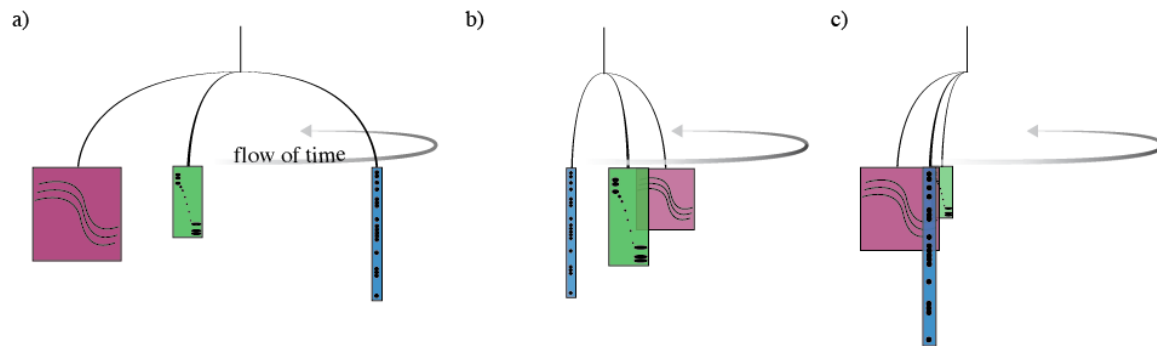
²³ Theorist Joseph Straus has described Stravinsky's formal language as "music [that] is articulated into discrete, insulated textural blocks that are sharply juxtaposed in time without transition," and theorist Edward Cone has described his formal discontinuity as the "most immediately obvious characteristic of a basic Stravinskian technique." Joseph N. Straus, "A Strategy of Large-Scale Organization in Stravinsky's Late Music," *Intégral*, 11 (1997): 1-2, and Edward T. Cone, "Stravinsky: The Progress of Method," *Perspectives of New Music* 1, 1 (Autumn, 1962): 19-20.

²⁴ Jonathan D. Kramer, "Moment Form in Twentieth-Century Music," *The Musical Quarterly* 64, 2 (April, 1978): 184.

²⁵ In the case of *Symphonies of Wind Instruments*, the only significant difference between one instantiation of a moment and another is generally one of placement within the gamut. Put another way, the second instantiation of a moment is usually presented at a different transpositional level than the first, and the variance between transpositional levels is usually small—only a minor or major second. Other than the difference in register between instantiations, all other parameters are largely maintained between instantiations of a moment, making the connection between instantiations of that moment very clear for the listener.

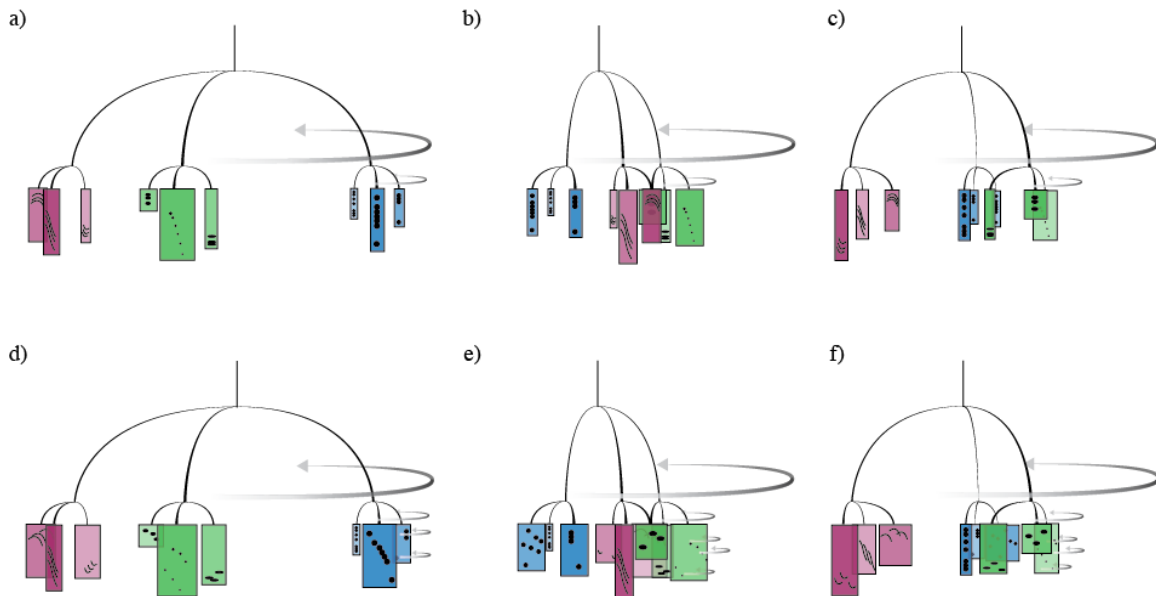
²⁶ Important: to reiterate, my use of the type of kinetic sculpture known as the mobile should not be equated with *mobile form*, which can be defined as the actual and performable randomization of the moments in a moment time piece.

Fig. 4.38 The compound-rotation of three internally static moments resulting in the creation of three separate large-scale forms.



Unlike Stravinsky's application of compound-rotation in *Symphonies of Wind Instruments*, which could be viewed as the "purer" representation of moment form, Dutilleux's application of the concept in *Ainsi la nuit* is recursive: on the large-scale, sections (or moments) rotate around one another; on the medium-scale, the objects that characterize those sections also rotate around one another; on the small-scale, the individual pitches that comprise those objects rotate around one another as well. This multi-level application of compound-rotation results in the continuous unfolding of unordered permutations across all structural levels, which in turn results in a greater level of dynamism, and places Dutilleux's application of the technique closer to the middle of the disordered-time-spectrum—that is, more toward multiply-directed time. Below, Figure 4.39 expands on the figure above, with Figures 4.39a-c illustrating Dutilleux's application of compound-rotation to the musical objects that constitute a moment or section, and with Figures 4.39d-f representing his application of compound-rotation across all hierarchical levels.

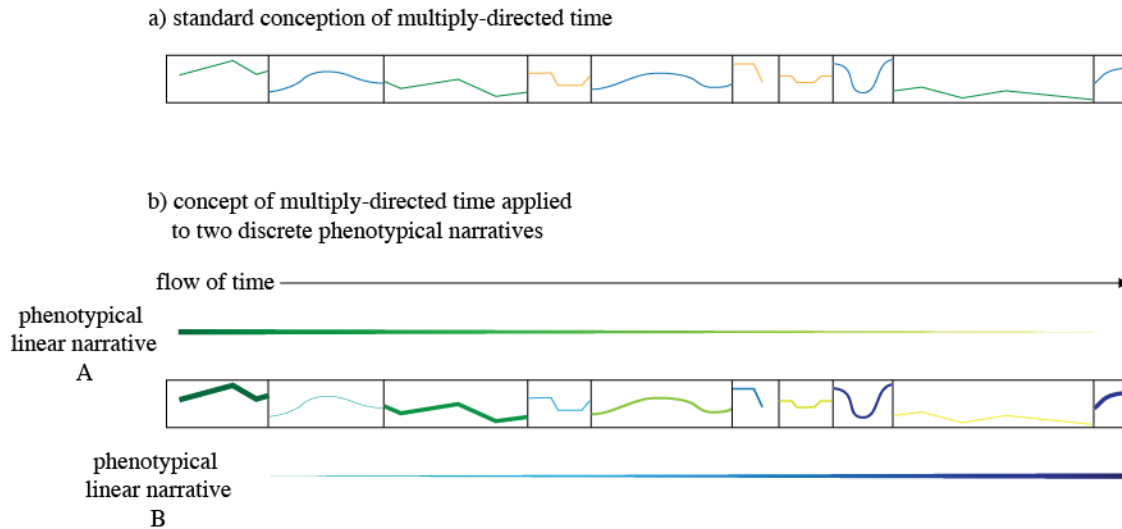
Fig. 4.39 Recursive or multi-level compound-rotation of moments, objects and individual elements.



Other sections in the string quartet imply the interrupted linear progression that is found in multiply-directed time. At times, these sections can and do hew much more closely to the multiply-directed time end of the disordered-time-spectrum, taking the standard form of the parametrically-integrated section of music that reemerges later in the work—a linear continuation of the prior section, and a continuation which is easily connected to the previous instantiation by the listener. However, because Dutilleux is willing to separate genotype from phenotype, the concept of interrupted linearity behind multiply-directed time can be applied individually to either pitch structure or to one or more of the phenotypical parameters that are initially associated with that pitch structure. For example, the linear development of a pitch structure might progress independently of its initial, associated phenotypical parameters; it could be interrupted by another section or event (for example), then reemerge independently of those initial parameters. And, as we saw with the antiphonal dialog that appeared in Figures 4.32 through 4.35, or the Jeté

Objects in Figures 4.24 through 4.28, the same application of multiply-directed time could be applied to gesture, or even to the specific production of a sound.

Fig. 4.40 Application of multiply-directed time to two unique “phenotypical narratives.”

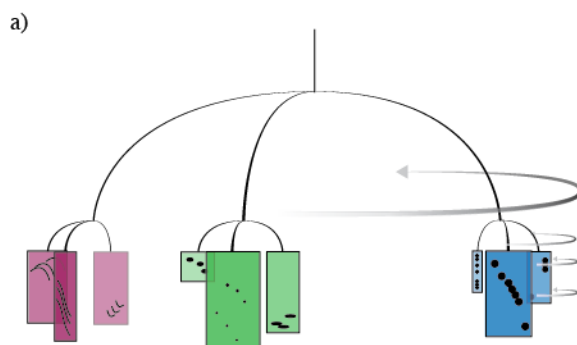


Above, Figure 4.40b builds on the preceding illustration of multiply-directed time supplied by Figure 4.36 (reproduced above as Figure 4.40a). Here, we can see how two individual “phenotypical narratives” can progress in a direction—that is, linearly— independent of one another and independent of the structure (genotype) they accompany at any given moment. For example, phenotypical linear narrative A transforms over time from a thick green line to a thin yellow line, while phenotypical linear narrative B from a thin light-blue line to a thick purple one. Each of these phenotypical linear narratives, which transform in a clear direction over time, are segmented, combined and rearranged into a new, temporally disjunct phenotypical narrative. This new phenotypical narrative is then transferred to the series of delimited structures that initially appear in Figure 4.40a, and which in turn also imply three simultaneous linear narratives that have been segmented, combined and rearranged (see Figure 4.40b). The result is a complex series of

separate linear narratives, some structural—that is, genotypical—and some phenotypical, all sounding “simultaneously”—or rather, progressing in the interrupted fashion that is associated with multiply-directed time.

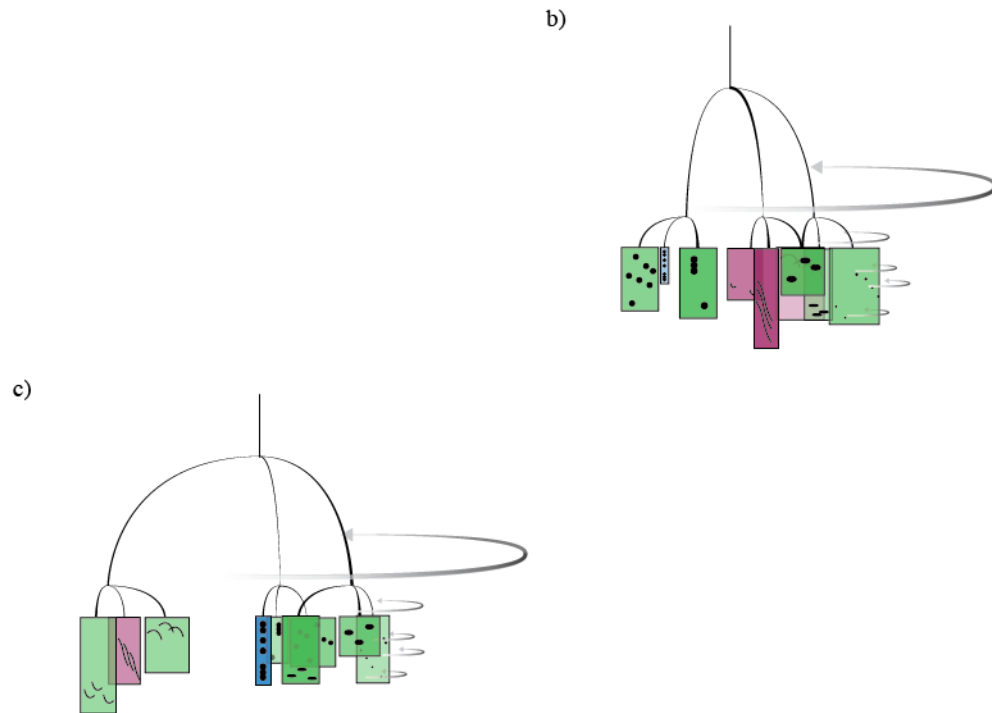
Furthermore, Dutilleux’s willingness to separate genotype and phenotype into discrete narrative timelines isn’t reserved solely for music that leans toward the multiply-directed time end of the spectrum, but also extends to his recursive approach to compound-rotation and moment form principles. First, while the phenotypical parameters that characterize a particular moment may remain stable from one instantiation to another, the genotype may switch—a new interval cycle, for example, could replace the interval cycle that characterized the previous instantiation (see Figures 4.32 through 4.35). Second, the process of parametric transference can be applied to moments as well. For example, the timbre or register of a separate moment could transfer to another and vice versa.²⁷ Below, Figure 4.41, based upon Figures 4.39d-f, shows the transfer of a single parameter (color) between moments that are undergoing a process of compound-rotation at every level.

Fig. 4.41 Multi-level structural compound-rotation of moments and transfer of the green phenotype between those same moments.



²⁷ While this “swapping” of genotypical and phenotypical elements definitely results in a greater level of formal complexity, it does not necessarily result in a move toward multiply-directed time. The reason for this is simple, the transfer of parameter (whatever it may be), between moments or sections, results in a sudden shift, but not in the gradual and traceable linear transformation that would be required for the creation of multiply-directed time.

(Fig. 4.41 continued)



The figures above visually illustrate some of the concepts that result in Dutilleux's formal/narrative syntax. However, while each concept is presented in a fairly isolated manner, in reality, the shifts from one end of the disordered-time-spectrum to the other are generally much more fluid in Dutilleux's music—sections existing in moment time may suddenly move toward multiply-directed time, and objects will transform and transfer parameters with other objects while under a continual process of compound-rotation—essentially, formal and temporal gray areas abound in *Ainsi la nuit*.²⁸



²⁸ For example, in the string quartet, the clearest instance of a referential device, and the clearest instance of a section existing in moment time—the initial measures of the Introduction, which begin with the “nuit chord”—eventually become the clearest example of multiply-directed time in the quartet. In fact, gray areas are an important element in Dutilleux's compositional language and will be the focus of Chapter 7.

It becomes apparent that Dutilleux's formal (or narrative) language, and the idiosyncratic developmental techniques—collectively referred to as progressive growth—which create that language, end up creating a particularly high degree of formal complexity. Additionally, because Dutilleux allows for the separation and individual linear transformation of genotype and phenotype along discrete narrative timelines when applied to multiply-directed time schemas, and also applies that same concept of genotypical and phenotypical separation to his multi-level, compound-rotational approach to moment time schemas, one no longer has to account only for the development of a single, parametrically integrated motif, but for the development and rearrangement of multiple musical parameters and the unique narratives that those parameters create.

Chapter 5

Aesthetic and Technical Connections Between Proust and Dutilleux's Process of Progressive Growth

In her book *Henri Dutilleux*, author Caroline Potter points to “aesthetic links” between the composer and Marcel Proust, pointing specifically to a shared aesthetic with regard to concepts of time and memory.¹ While I agree this shared aesthetic exists, I would argue that the influence that Proust exerted over Dutilleux went beyond the aesthetic and into the technical. To put it another way, Dutilleux is clearly influenced by Proust’s aesthetic approach to the phenomena of time and memory. In fact, when discussing Proust’s influence over his own aesthetic, time and memory are the only concepts that he mentions.² However, it is not only aesthetics that Dutilleux is appropriating, but also the technical means that Proust employed to achieve those aesthetic ends.

Proust’s Influence on Dutilleux’s Approach to Time

When we discuss the influence that Proust’s treatment of time exerted over Dutilleux’s approach to the concept, it’s important to remember that what we are really discussing is the influence of Proust’s formal language on Dutilleux’s formal language, the connections between those formal languages, and the techniques involved in producing them.³

¹ Potter, 59.

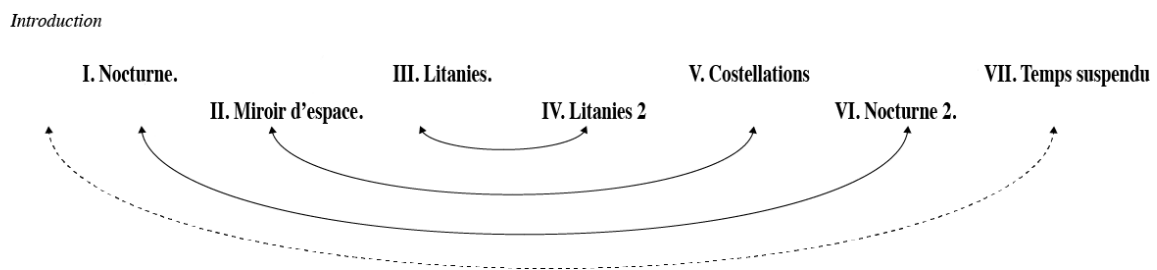
² See quotes on pages 9, 10 and 11 of Chapter 1.

³ See Chapter 4, page 92.

Between these two formal languages, technical connections exist on all levels, from the largest- to smallest-scale. For example, both *À la recherche du temps perdu* and *Ainsi la nuit* exhibit characteristics of large-scale arch form when viewed as a single formal unit. In *À la recherche du temps perdu*, arch form is defined by chronologic clarity, the sequence of events in the first and final volumes of the work presenting a greater degree of temporal specificity in relation to events “outside” of the novel than in the intervening volumes. In *Ainsi la nuit*, two overlapping large-scale arch forms are created.

The first is conceptual and becomes readily apparent when the four sections known as Parentheses are removed (see Figure 5.1, below). And while there is clearly no overt conceptual connection between the Introduction and Temps suspendu, the musical connection between the two outer movements and the first instantiation of the Nocturne takes us to the second, more traditional large-scale arch form—namely, sound events that appear in the beginning of the string quartet, reemerge at its end, only in reverse order.

Fig. 5.1 The first conceptual arch form, which is created by the titles of the movements in *Ainsi la nuit*.



Understand that the first, “conceptual” arch-form does not create a musical arch form—in other words, the music of Litanies is not repeated in some sort of reverse order in Litanies 2. Similarly, the music of the Nocturne does not reappear in Nocturne 2, but rather at the beginning of the final movement. It is then, in Temps suspendu, that Dutilleux brings back, in reverse order, two significant elements from the beginning: the opening vertical

sonority (known as the “nuit chord”), which now ends the piece; and the first *Nocturne*’s antiphonal dialogue (which, reappears at the beginning of *Temps suspendu*). It is important to note that when they reappear, the final instantiations of the antiphonal dialogue and the “nuit chord” are heavily altered through processes of progressive growth—the antiphonal dialogue in *Temps suspendu* maintaining its genotype, but having picked up several phenotypical parameters from previous objects and events (see Chapter 4, pages 67-79), and the final “nuit chord” now comprised of an altered phenotype and expressing a separate segment of the “nuit chord” genotype, but maintaining enough of its defining phenotypical characteristics (primarily voicing and register), that it remains recognizable (see Figure 5.2, below).

Fig. 5.2 The second arch form in *Ainsi la nuit*.

Large-scale Connections: Non-linear Narrative Sequences

The large-scale formal connection that specifically exists between *À la recherche du temps perdu* and *Ainsi la nuit*—the creation of a loose arch-form by both Proust and

Dutilleux—is an important formal connection. However, I am hesitant to say that the creation of an encompassing arch-form is necessarily an element of Dutilleux’s formal language across his entire body of work. Instead, it is within the boundaries of each work—at the level of the event and section, character and musical object—that we find the clearest technical and aesthetic links between elements in Proust’s and Dutilleux’s formal languages that also exist as recognizable characteristics of each respective artist’s overall style.

At the level of the section, or individual event, Dutilleux’s is most heavily influenced by Proust’s presentation of narrative sequence. That Dutilleux makes use of multiply-directed time and moment time schemas (and the gray areas in between), that he applies organizational constructs, which result in discontinuous and disordered formal sequences, makes sense given Proust’s formal style is also largely defined by the constant creation and exploitation of disjunct narrative sequences. Indeed, just as events in both *Ainsi la nuit* and *À la recherche du temps perdu* seem to relate to implied linearly structured chronologies *outside* of each respective work, the presentation of events *inside* each work, to use an earlier description of Proust’s approach to narrative sequence are more often than not, treated as “delimited units on a linear timeline that can be rearranged.”⁴

The reasons for the technical connections and similarities in approach to narrative sequence can be found in Proust’s and Dutilleux’s shared aesthetic goals. Remember that for Proust, temporal reordering was one of the ways in which he could replicate the subjective, non-linear, interior world of the mind. Likewise, the nocturnal theme and dreamlike aesthetic of *Ainsi la nuit*, what Dutilleux referred to as a “nocturnal vision,” and what Caroline Potter so eloquently describes as “[A] world of dreams...in which chronology

⁴ See Chapter 2, page 17.

has no meaning [and where] the events of the past day are often relived...[but] recur in a jumbled, often fragmentary form,” are enhanced by Dutilleux’s use of non-linear formal schemas.⁵

Medium- to Small-scale Connections: Multiplicity, Simultaneity, and Compound-rotation

Remember too, that for Proust the reordering of linear time and narrative sequences also informed his approach to the smaller-scale elements—the characters, places and events—that existed within his narrative. This approach took shape in his belief that in order to truly understand people, places and events, one had to view each of those elements from multiple perspectives, be they temporal, physical or both. In essence, a composite needed to be built for the reader from a multitude of moments—from a large volume of memories, revolving around a single entity, placed side by side, without regard to the “contingencies of time.”⁶

Dutilleux’s objects, in some sense, could be viewed as the musical equivalent of Proust’s characters, and the compound-rotation of musical objects, along with the subsequent rearranging of their constituent parts, as one of the primary technical means through which Dutilleux realized Proust’s aesthetic of multiplicity. With each compound-rotation of an object’s constituent elements, Dutilleux presents the listener with a slightly different perspective of that object—either by presenting a different and unique subset and unordered permutation of an object’s underlying genotype, or by combining—that is, rearranging—the genotypes and phenotypes of separate objects.

⁵ Potter, 72.

⁶ Proust, *In Search of Lost Time—Time Regained*, 290. See also, Chapter 2, pages 23-24.

Fig. 5.3 Multiple perspectives of the viola's musical object that appears in the Nocturne at Reh. 5.

a) basic components of the underlying musical object comprised of:

genotype: octatonic aggregate

phenotype: melodic contour



b)

5

6

perspective 1

perspective 2

perspective 3

perspective 4

perspective 5

cresc

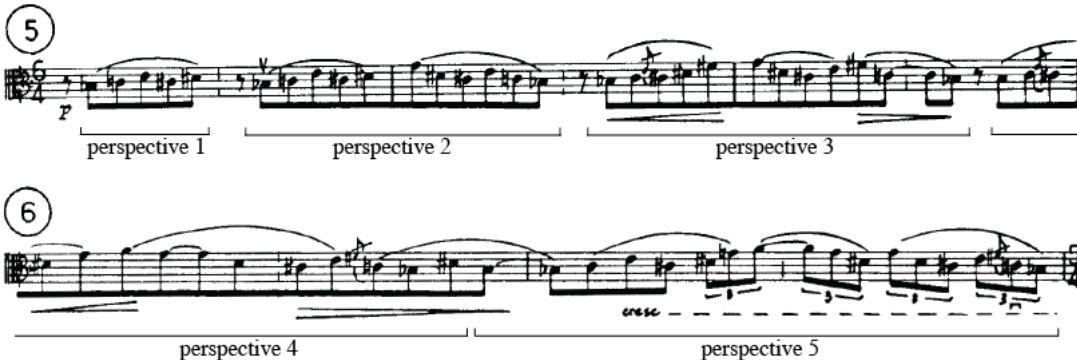


Figure 5.3, above, returns to the musical object that is played by the viola at Rehearsal 5 of the Nocturne.⁷ While this object is comprised of numerous phenotypical traits—for example, a piano dynamic and static eighth-note rhythm—the two basic components that make it recognizable as a unique object are melodic contour, and its octatonic genotype. However, this is not revealed through any single instantiation. Rather, by rearranging subsets of the octatonic genotype, Dutilleux reveals the “true nature” of the object through an accumulation of instantiations, each instantiation providing a unique perspective on the underlying form of the object. Like Proust’s view of the interior “self,” with Dutilleux’s musical objects “[n]o one version can ever be considered to be definitive.”⁸

⁷ For a more complete analysis of the object in Figure 5.3 please return to the section in Chapter 4 that discusses segmentation and recombination, found on pages 59-61.

⁸ Landy, 119-121.

Below, Figure 5.4 presents seven different perspectives of one of the objects that appeared in Chapter 4 with Figure 4.30.⁹ Here we see not only different perspectives on the underlying pitch structure—at first a 6+7 Cycle, and then 1+2, or Octatonic Cycle—but also, different perspectives on the surface traits of the object. There are numerous presentations of the basic phenotype, but in general, we are able to build a view of the object as being a widely-spaced vertical pitch structure that is arpeggiated in some fashion. Additionally, following the first presentation of the object (perspective 1), each presentation (perspectives 2 through 7) provides a different view of the underlying octatonic pitch structure, the full octatonic aggregate only realized through a composite of instantiations.

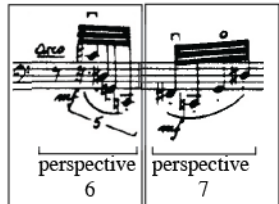
Fig. 5.4 Different perspectives of an object in *Ainsi la nuit*.

a) **genotype:** 6+7 Cycle
phenotype: strummed, pizzicato, vertical sonority



perspective 1
Introduction
1 after Reh.C
(vln 1)

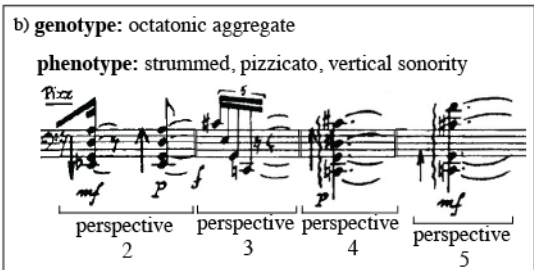
c) **genotype:** octatonic aggregate
phenotype: jeté bowing, vertical sonority



perspective 6
Nocturne
1 before Reh.7
(vc)

perspective 7
Nocturne
1 before Reh.9
(vc)

b) **genotype:** octatonic aggregate
phenotype: strummed, pizzicato, vertical sonority



perspective 2
Nocturne, Rehearsals 3-6 (vc)

perspective 3

perspective 4

perspective 5

So, just as Proust considered the complete understanding of character—of human personality—to result from a composite of remembered moments, metaphorically connecting the concept to a series of photographs that present the person from different perspectives in space as well as different moments in time, so too did Dutilleux view the musical object. With each unique compound-rotation of the musical object's genotypical

⁹ Initially, this object is presented as the Arpeggio Object in both Figures 4.29 and 4.30. In those figures we see the transformation of this object into Jeté Object E. Correspondingly, perspectives 1-5 are instantiations of the Arpeggio Object, while perspectives 6-7 are instantiations of the Jeté Object.

and phenotypical elements, with each new permutation, the listener is presented with a “single aspect...a single photograph” that results in a “succession of discrete moments” from which they can build, in their “mind’s ear,” a composite “image” of the object. And, with each new “snapshot,” the musical object grows in volume—both spatially and temporally—and the listener’s understanding of the object grows as well. Perhaps the best description of this process and philosophy, as applied to music, comes not from Dutilleux, but from Harrison Birtwistle regarding his opera *The Mask of Orpheus*:

“I’m concerned with...going over and over the same event from different angles, so that a multidimensional musical object is created which contains a number of contradictions and a number of perspectives. I don’t create linear music. I move in circles; more precisely, I move in concentric circles. The events that I create move as the planets move in the solar system. They rotate at various speeds.”¹⁰

The notion that “events...rotate at various speeds” is important, and an apt description of Dutilleux’s approach to compound-rotation, for like Birtwistle, Dutilleux’s process of compound-rotation (as mentioned in the Chapters 3 and 4) is extended, recursively, to all structural levels, with each level “rotating” at a separate rate.

The first producer of Birtwistle’s opera, David Freeman, then goes on to expand on Birtwistle’s thoughts:

¹⁰ English National Opera, *The Mask of Orpheus* program booklet (London: English National Opera, 1986). Also cited in Kramer, *The Time of Music*, 49.

“The audience is given the opportunity of witnessing the same event from a number of perspectives not only in sequence, but simultaneously...Possibly the most exciting thing about *The Mask of Orpheus* is the manipulation of time: flashbacks, forward projections, and the use of multiplicity—those moments when two actions which contradict one another occur simultaneously.”¹¹

The two preceding quotes, which appear in the section of Kramer’s *The Time of Music* that deals specifically with multiply-directed time, further bolsters the connection between Dutilleux’s use of non-linear formal schemas and Proust’s inclination toward disordered narrative sequence, and also lead to a final intriguing thought with regard to concepts of simultaneity and multiplicity.

We return to the idea that Proust sought to “excise temporal distance” between events, to place past and present memories “side by side” in order to gain a deeper understanding of disparate narrative elements, be they character, events or both.¹² It may be that through one of the defining features of Progressive Growth—the separation of genotype and phenotype—Dutilleux sought, like Proust, to fuse events “separated in time...[into] a single homogeneous memory.”¹³ In other words, by combining the phenotype of one specific event or object with the genotype of a separate event or object, Dutilleux was effectively placing aspects of both events in the same narrative time-space,

¹¹ English National Opera, *The Mask of Orpheus* program booklet (London: English National Opera, 1986). Also cited in Kramer, *The Time of Music*, 49.

¹² See Chapter 2, pages 24-25.

¹³ Rogers, 160. See Chapter 2, pages 21-22.

creating a formal convergence of ideas or objects, and creating a musical simultaneity and multiplicity reflective of Proust's view that, in order "to see anything in temporal depth, we need at least two impressions of it"¹⁴

Additional Medium-scale Connections: Discursive Phrasing

As previously mentioned, a well-known characteristic of Proust's narrative style was his tendency toward discursive and ever-expanding phrasing. Often referred to as "labyrinthine," Proust's sentences, which continuously digress, and which are "based predominantly on recursive clauses and metaphors grouped around a single idea," can stretch across multiple pages.¹⁵ In fact, Proust's longest sentence clocks in at 958 words!¹⁶ The aesthetic reasons for his hypotactic approach to sentence structure are again reflected in Proust's desire to capture, with prose, the subjective and non-linear complexities of the human mind—to recreate the multiple thoughts, selves and perspectives that can exist simultaneously at any given time.

In Dutilleux's music this aesthetic is realized in a similar manner. By presenting an initial phrase (or idea), then expanding upon the phrase through repetition and a logical extension of the initial idea, Dutilleux is able to produce through phrasing, an ever-expanding series of perspectives. Like compound-rotation, this technique naturally produces a greater degree of "volume," increasing, with each expanded iteration, the dimensionality of the original phrase, idea or object.

¹⁴ Shattuck, *Proust's Binoculars*, 46-7. See also, Chapter 2, page 21.

¹⁵ Hesketh, 466.

¹⁶ Nathan Brixius, "The Five Longest Proust Sentences," Nathan Brixius: data science, optimization, analytics, sports [online], <https://nathanbrixius.wordpress.com/2013/10/30/the-five-longest-proust-sentences/> (accessed February 28, 2019).

Figure 5.3 (the viola's line at Rehearsal 5 of the Nocturne) has already provided an example of this technique (see page 108, above). Notice that each new presentation of the initial phrase grows both horizontally and vertically (in this case, extending only up), until we reach "perspective 5," whereby the length of the initial phrase has increased more than three-fold (from five notes to sixteen), and the gamut has expanded from a tritone to a major 7th.

Below, Figure 5.5 looks at the section of the Nocturne that directly follows the viola's music at Rehearsals 5 and 6. Again, with this descending/ascending musical gesture we see, through it's reiteration and subsequent horizontal and vertical expansions, an accumulation of four perspectives through which to view and better understand the underlying character of the initial gesture.

Fig. 5.5 Reiteration and expansion of a phrase-level object at Reh. 7 of the Nocturne.

The image displays a musical score for three perspectives of a phrase-level object at Rehearsal 7 of the Nocturne. The score is organized into three vertical sections labeled "perspective 1", "perspective 2", and "perspective 3".

- Perspective 1:** Labeled "7" in a circle and "Plus animé". It features a treble clef staff with a key signature of one sharp (F#) and a 4/4 time signature. The music begins with a forte (*f*) dynamic and includes markings for "legatissimo" and "Aro". A piano part is shown below with a mezzo-forte (*mf*) dynamic and a "Pizz" (pizzicato) marking.
- Perspective 2:** Continues the musical material, showing further expansion of the phrase. It includes markings for "legatissimo", "Aro", and "Pizz". Dynamics range from *f* to *pp* (pianissimo).
- Perspective 3:** Shows the final stage of the phrase's expansion. It includes markings for "legatissimo", "Aro", and "Pizz". Dynamics range from *f* to *p* (piano).

The score illustrates the reiteration and expansion of a phrase-level object through these three perspectives, showing how the initial gesture is developed and varied.

(Fig. 5.5 continued)

perspective 4

The image displays two systems of musical notation. The top system, labeled 'perspective 4', consists of four staves. The first staff has a circled '8' above it. The notation includes various rhythmic values, accidentals, and dynamic markings such as *mf*, *f*, and *ff*. The bottom system also consists of four staves, with the first staff marked 'Un poco stringendo'. This system includes dynamic markings like *mf* and *pp*. The notation is dense and complex, typical of modernist musical notation.

Additional Small-scale Connections: the Introduction of Ideas

At the smallest level, there is an additional correlation between the ways in which both Proust and Dutilleux introduced important narrative elements. Remember that in Proust's *À la recherche du temps perdu*, characters and events are often introduced in a passing and seemingly unimportant fashion, reappearing hundreds, or in the case of the *moments bienheureux*, thousands of pages later as an integral element in the story. With Dutilleux, this approach is reflected in his “bit by bit” development of “small cells”—in his “tendency” to introduce 3- to 4-note musical objects covertly, inserting them into a texture

and then slowly expanding and transforming the object throughout the course of the work.¹⁷

For an excellent example of this tendency, we can look to the Jeté Object. When this object initially appears, as Jeté Object A, it is buried within a separate texture, ostensibly a rhythmic variation of the artificial harmonic gesture that so populates the Nocturne's initial Antiphonal Dialog (see Figure 5.6a, below). However, as the Jeté Object (or more specifically, the jeté parameter) transforms across the work, slowly becoming larger with each appearance, either through length or through number of forces, it becomes a more important gesture, starting from a place of relative insignificance—buried within a the texture of the Nocturne's opening bars—and moving into a place that is highly significant—the final gesture of the work (Jeté Object J, shown below in Figure 5.6b). Additionally, notice that like Dutilleux's discursive phrases, with each transformation, the descendants of the Jeté Object *grow*—each becomes *progressively* larger: either vertically, as is the case in Jeté Object G; horizontally, as is the case with “Jeté” Object H; or both, as is the case with Jeté Objects G', I and J.

Fig. 5.6 Expansion and transformation of an initially small-scale object.

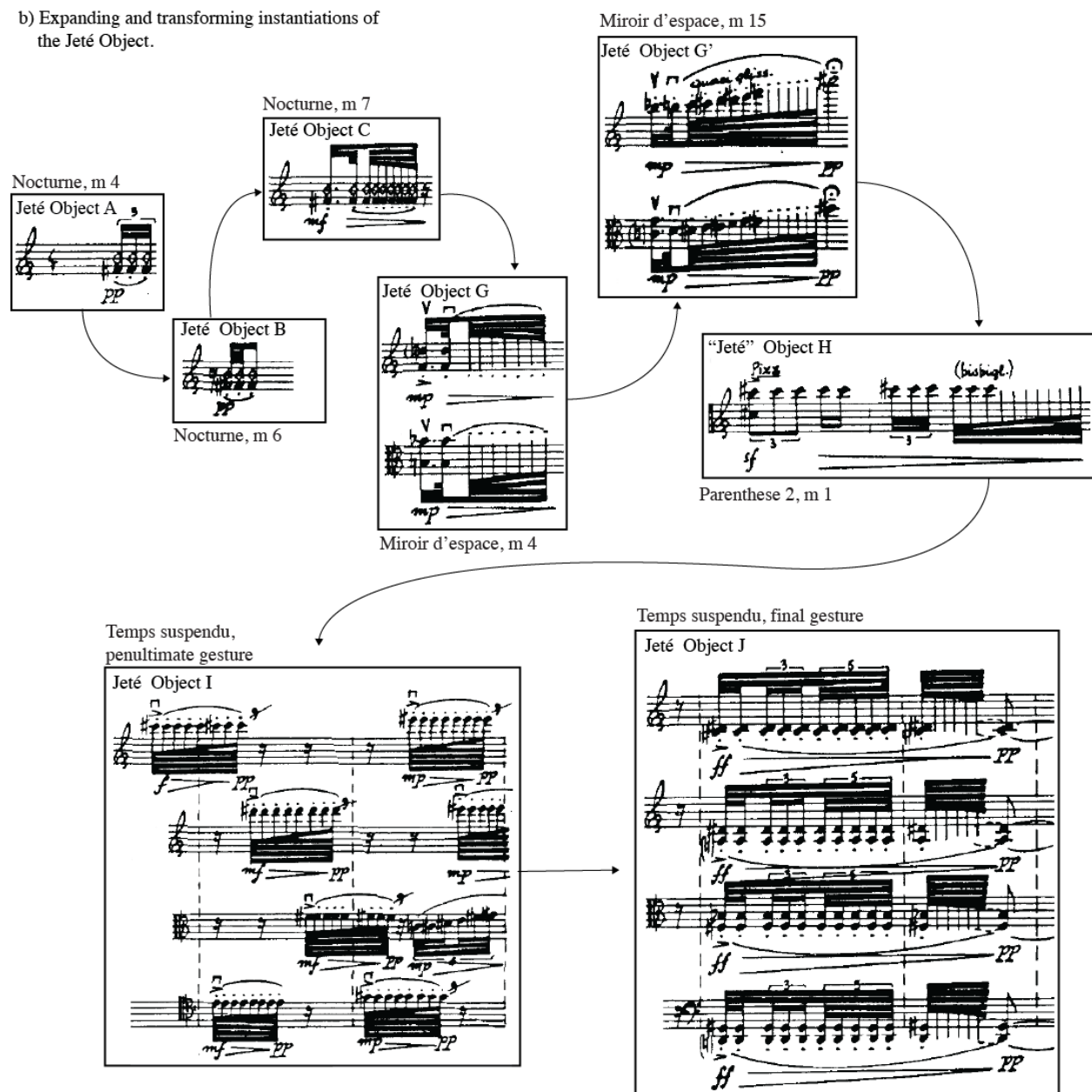
a) First two instantiations of the jeté object in the Nocturne.



¹⁷ Dutilleux and Nichols, “Progressive Growth,” 89. Also, see Chapter 3, page 33.

(Fig. 5.6 continued)

b) Expanding and transforming instantiations of the Jeté Object.



Progressive Growth *Progressively* Grows

The preceding thought brings us to the last concept that will be discussed in regard to structural/formal aspects of progressive growth—namely that musical objects, gestures or ideas undergoing a process of progressive growth *progressively* grow. This can occur in two basic ways: physically, as we saw with the examples of discursive phrasing, in which

each sequential reiteration of the initial idea is progressively expanded horizontally, vertically or both; or conceptually, as we saw with the example of the Arpeggio Objects presented in Figure 5.4, where a series of related yet separate objects present varied perspectives that accumulate—that create a composite “image,” which progressively grows in the mind of the listener. These two basic forms of progressive growth can of course be combined, as was the case with the Jeté Objects presented in Figure 5.6, above.



Proust’s Influence on Dutilleux’s Approach to Memory

With the preceding discussion of multiplicity and compound-rotation, we have already touched on one of the ways in which Proust influenced Dutilleux’s approach to memory within his music—that is, as a concept multiplicity (whether in prose or in music) requires memories. In this section, what we will be examining is not the volume of memories, or the composite created by that volume, but rather the relationships between the memories. In other words, we will be looking specifically at the phenomenon of *association*, and the techniques Proust and Dutilleux use to create associative connections between memories.

Association and Neural Connections

Simply put, association “is a [cognitive] process whereby events that happen close together in time or seem similar form memories that are connected together.”¹⁸ When we experience an event, learn a new concept or perceive an object, neurons, located in

¹⁸ Bob Snyder, *Music and Memory: An Introduction* (Cambridge, MA: MIT Press, 2000), 69.

separate sections of the brain, process and store information about the different aspects of the event, concept or object. For example, the size, shape and color of an object, as well as the moment in time, and the space in which the object was observed, are stored in separate locations. Therefore, “in the act of remembering the object, these relationships must be reassembled from elements scattered throughout the areas of the brain. Consequently, in order to successfully retrieve a memory, an individual may have to resort to recollecting the place and time it was formed, alongside an associated image, position, quality, etc.”¹⁹

When remembering a concept, object or event, any aspect of that concept, object or event can cue a similar or parallel association stored in the same area of the brain. For example, the thought of your first car, and the associated time period in which you drove it, might cue an associated memory from that same time period, say, the last day of high school. Additionally, “[a]ssociations can move rapidly through different parts of the brain as different groups of neurons become activated.”²⁰ In other words, one aspect of a memory can quickly cue another disparate memory, which can cue another disparate memory, and so on.

Creating Associations: Long-term and Short-term Memory

Association relies on long-term memory, or conversely, long-term memories are required in order to build the connections that are referred to as associations. However, the construction of long-term memory relies upon the repetition of short-term memories.²¹

¹⁹ Hesketh, 465.

²⁰ Snyder, 70.

²¹ Ibid., 69.

When something is experienced, especially for the first time, it tends to be experienced through short-term memory. Short-term memory is the neurological process that is “immediately available to conscious awareness,” but it also decays quickly: the average short-term memory lasting only three to five seconds.^{22, 23} In order to extend the limits of short-term memory, the mind will separate and **group** the information our senses are receiving into manageable units.

Perceptual Grouping: Proximity and Similarity

There are two basic ways the mind groups different phenomena. The first is primarily determined by **proximity**—or rather, events that take place in close succession, or objects that physically exist close to one another, tend to be grouped together, with the relatively larger intervals of time between events, and larger physical spaces between objects, marking cognitive (and sometimes physical) boundaries. In the absence of close proximity, the perception of a parametric **similarity** between events, objects or concepts will also result in the grouping of separate events, objects or concepts.²⁴ For example, the lemon-yellow house that you purchased in your thirties may draw your mind back to the lemon-yellow car your father drove you to school in as a child. A parametric similarity (color) thus connects, and groups, two temporally and physically separate objects.

Association in Music

In music, associations are built in basically the same way. When a piece of music is first experienced, the “acoustical information” our ears are receiving is grouped into

²² Snyder, 50-51.

²³ Correspondingly, the duration of most sentences and musical phrases is approximately three to five seconds.

²⁴ Snyder, 40-41.

manageable units called **chunks**, which provide a melodic, rhythmic and formal organization that is akin to the spatial and visual organization provided by a discrete physical object, effectively outlining a “coherent entity within a set of boundaries.”²⁵

A chunk is usually comprised of five to nine elements with the average size of a chunk being seven.²⁶ At the smallest level, the elements in the chunk are individual notes. A short motif would be a good example of this type of chunk, the notes and rhythms that comprise the motif being grouped, or “chunked,” together as a result of close temporal proximity. Additionally, the timbre, register, tempo, etc., associated with the motif also become part of the chunk. However, “‘chunking’ is a hierarchical process,” meaning smaller chunks can be grouped together into a higher-level chunk, which in turn is comprised of an average of seven smaller-level chunks.²⁷ A musical phrase is a good example of a higher-level chunk, and a phrase can also become part of an even larger associative chunk by either immediately connecting to another musical phrase through close temporal proximity, by connecting to a temporally separate phrase through similarity in parameters (like a shared timbre, register, etc.), or both. Basically, memories are stored in unique, size-restricted chunks, and any “element in that chunk may act as a cue for another chunk, connecting them together in an unfolding sequence of associations.”²⁸

²⁵ Snyder, 31.

²⁶ Ibid., 36.

²⁷ Ibid., 36.

²⁸ Ibid., 70.

Associative Connections: Proust and Metaphor

Metaphor, a narrative device that makes use of the mind's associative tendencies, both relies upon and creates, in the mind, "a relationship between two memory structures."²⁹ Put another way, metaphor will "map" features of one memory onto another memory with a similar feature.³⁰ In his book *Music and Memory*, Bob Snyder explains metaphor this way:

[I]f we say, "melody is a path," we are mapping the image...of a path onto the more abstract concept of a melody. Both paths and melodies proceed step by step, and both have a direction, with twists and turns in them. Note, however, that not all of the details of either term in this metaphor map onto the other. Melodies, for example, do not have anything corresponding to grass growing on them, and paths do not have accompaniments.³¹

The power of metaphor then lies in its ability to increase our understanding of phenomena. It brings a fresh perspective to one concept, event or object, by framing it in terms of another concept, event or object that shares a similar quality or set of qualities.

Proust, you may recall, relied on an expansive use of metaphor.³² It was one of the primary ways he resolved discrepancies that emerged naturally when he used multiple and

²⁹ Snyder, 107.

³⁰ Ibid., 107.

³¹ Ibid., 107-108.

³² See Chapter 2, pages 22-25.

contradictory concepts and images to describe a single person or event, or when he fused multiple and temporally isolated moments into a single recollection. More broadly, Proust used metaphor to connect disparate narrative elements by drawing to the forefront of the reader's consciousness perceived similarities between those disparate elements—in other words, by “mapping” those similarities onto one another with a metaphor. This last point is very important because, as an associative technique, metaphor relies exclusively on similarity rather than proximity to make connections. Take for example, the following quote from *Swann's Way*:

Once he was left alone he would see that smile again, and also her smile of the day before, and another with which she had greeted him sometime else, and the smile which had been her answer, in the carriage that night, when he had asked her whether she objected to his rearranging her cattleyas; and the life of Odette at all other times, since he knew nothing of it, appeared to him, with its neutral and colorless background, like those sheets of sketches by Watteau upon which one sees here, there, at every corner and at various angles, traced in three colors upon the buff paper, innumerable smiles.³³

Above, similarity works to bind together the preceding quote in several ways. The first is purely associative and doesn't involve the use of metaphor—namely, the consistency of Odette's smile, present in each isolated moment, connects each event

³³ Marcel Proust, *In Search of Lost Time—Swann's Way*, trans. C.K. Scott Moncrieff and Terence Kilmartin (New York, NY: Random House, 1992), 340.

through similarity in the Narrator's mind.³⁴ Metaphorically, a conceptual similarity is created by connecting the Narrator's lack of knowledge about Odette's life to the undefined impression created by a blank piece of paper. Finally, the use of metaphor creates an additional, conceptual similarity by associating an artist's studies (the different sketches of a smile) to the way the Narrator mentally conceives of the various moments, which are described at the beginning of the sentence as arrayed side by side.

Associative Connections: Dutilleux, Phenotype, Similarity and Involuntary Memory

Of course, Dutilleux did not use metaphors in his music to create associations between separate objects. Nevertheless, like Proust, he did view the phenomena of memory and the creation of associative connections as integral to his particular conception of variation. In an interview with Claude Glayman, Dutilleux briefly explained his approach to the phenomenon of memory in his own music:

...if you apply a process of wide-ranging variation to a given formula—whether it's melodic, harmonic or rhythmic—to the point that this formula becomes unrecognizable, can you say there is no recapitulation? The phenomenon of memory attaches itself to this scrap of the formula or what is left of it after its subtle metamorphosis. This is how I personally conceive of the idea of variation and it's something that I have always worked on in my

³⁴ It should be noted this first half of the sentence, which revolves around the different instantiations of Odette's smile, makes use of proximity as well—that is, it builds associative connections by placing separate moments adjacent to one another.

more recent scores...[essentially] to be able to see that one element refers to a particular other...is what gives the language its strength.³⁵

At first glance, Dutilleux's views on metamorphosis and memory do not appear to overtly connect to Proust's use of metaphor. However, if we pull the quote apart, a very clear connection emerges that revolves, like metaphor, around similarity. Essentially, Dutilleux is saying that when a musical object has transformed so completely it could be considered a new and separate object, the listener's mind, even if they are unaware of it, will hold onto some element of the original, which will connect it, backwards across time, to the new. This notion is backed up later in the same interview when he adds, "When I talk about memory I'm thinking rather of some sound event, sometimes very short and not instantly identifiable, which will lodge in the listener's unconscious and play its role retrospectively." With these two quotes, Dutilleux is not discussing temporal proximity, which requires that objects be placed side-by-side, but rather is describing parametric similarity; he is talking about connecting separate ideas with a *phenotypical* parameter. In fact, we can tie the brain's two associative grouping mechanisms—proximity and similarity—directly to genotype, phenotype and the processes involved in progressive growth. For instance, processes of structural transformation, which affect genotype, create associations with proximity. In other words, reordering, and segmentation and recombination, generate new pitch relationships by placing those pitches, or groupings of pitches, in close proximity to one another. Alternately, processes of parametric

³⁵ Dutilleux and Glayman, *Music – Mystery and Memory*, 52.

transference, which affect phenotype, also create associations by connecting similar surface traits across temporal distances.

We could look at it this way: many elements—genotypical (pitch structures) and phenotypical (timbre, register, voicing, etc.)—are involved in creating a musical object. Over time, a gradual metamorphosis to any of these elements, through a process of structural or parametric transformation will move the object far away from its original state. However, the composer might cue an association between the new and original objects, by appropriating one or more of the phenotypical parameters that was linked to the original object, and transferring it to the new object. And, of course, the more phenotypical parameters are transferred between objects, the higher the likelihood an overt (and conscious) association between objects will be made.

Like Proust's use of metaphor, Dutilleux's process of parametric transference creates similarities, building a connective tissue between events and objects that remain separate in time. To be sure, proximity plays an important role in creating associative connections in Dutilleux's music. For example, both Proust and Dutilleux create new relationships by rearranging linear narrative timelines and placing normally separate elements side by side. However, situating one musical idea next to another and creating a new relationship through close proximity is somewhat well worn, especially in the early twentieth century. Instead, part of what makes progressive growth particularly unique, and what connects Dutilleux's "memory aesthetic" to Proust's, is the technique he uses to create associations "retrospectively" across time by exploiting the grouping mechanism of similarity; it is his willingness to separate phenotype from genotype—extra-structural parameter from pitch structure—and build a dense network of associations, across an

entire piece, by transferring something as simple as a unique timbre, or a particular voicing, between objects.

Priming and Musical Déjà Vu

In his book *Debussy: La mer*, author Simon Trezise makes the observation that “[s]light parallels between the motifs account for the uncanny feeling [a] motif is at once familiar and unfamiliar, as so often happens in *La mer*.”³⁶ This “uncanny feeling,” a sort of “musical déjà vu,” is a feature of Dutilleux’s music as well, and as an aspect of memory and association, results from a phenomenon referred to as *priming*.

Long-term Memory and Priming

Long-term memories exist in our unconscious and must be cued by association into conscious awareness by present experiences. Essentially, similarities between the present moment and a closely related past experience, stored in long-term memory, will bring that past experience into conscious awareness by activating overlapping or neighboring groups of neurons. In the process of cuing a long-term memory, several other, related long-term memories will also become semiactivated—simply put, they become “primed.”^{37, 38}

Primed memories remain in the unconscious—or rather, they reside on the “periphery” of consciousness, waiting to become highly activated by further cuing. Because primed long-term memories exist just outside of conscious awareness, they are responsible

³⁶ Simon Trezise, *La Mer* (Cambridge, England: Cambridge University Press, 1994), 56.

³⁷ Snyder, 48.

³⁸ All memories that are in cued into being and in use at a given time are “activated” memories. “Highly activated” memories are said to exist “in the focus of conscious awareness,” and are immediately available to the conscious mind. However, not all activated memories reside in conscious awareness. “Semiactivated” memories are long-term memories that “...are not so active as to actually be in consciousness themselves.” Rather, semiactivated memories create “a context for current awareness,” which “takes the form of expectations, memory of the recent past, and other related knowledge that can influence the direction that current consciousness takes, even though [the semiactivated memory] is not itself conscious.” Snyder, 5.

for the “uncanny feeling” that something in a piece of music is familiar, that it may have already happened.^{39, 40}

Processes of Progressive Growth and Priming

In order for a “traditional” musical idea, like an eighteenth- or nineteenth-century theme or motif, to be easily recognizable when it reappears later in a work, a large number of parameters (both genotypical and phenotypical), which serve to define that theme or motif, need to be carried over between instantiations and permutations—in simple terms, when that theme reappears, if we are to recognize it, a transfer of one or two of the original parameters won’t suffice. When a sufficient number of the parameters *are* transferred between thematic or motivic instantiations—or rather, when a strong connection is built between instantiations—the activated neurons will map onto the areas of the brain that store the long-term memory associated with that particular theme. They will become highly activated, bringing the past thematic instantiation back into conscious awareness, and allowing the listener to recognize the theme as related to previous versions. In this way, the listener can easily connect instantiations, even if they are varied slightly, to one another across time.

But remember for Dutilleux, the type of nineteenth-century parametric stability between thematic instantiations described above was anathema to his particular conception of transformation; he found the idea of an instantly recognizable melody or theme “extremely irritating” primarily because it achieved its aim of being immediately

³⁹ Snyder, 48.

⁴⁰ Ibid., 73-74.

recognizable.⁴¹ This aversion to recognizability took shape in his processes of progressive growth, processes that, as we have seen, continually transformed the pitch structures and extra-structural parameters to the point that they often become quickly unrecognizable.

Additionally, when Dutilleux *did* want to create an association between objects or moments, his desire was to create not the overt connection created by the leitmotif, but rather a subtle connection between past and present moments, a connection created with the transfer of one, two or maybe three phenotypical parameters. So, where the iteration of a traditional theme might completely, or almost completely, map onto the long-term memory of an earlier version of that theme, with Dutilleux's objects, only one or two aspects of a previous instantiation would map onto the long-term memory associated with another. Basically, because Dutilleux's objects transform so completely and so consistently under his processes of progressive growth, and because when his objects *do* transfer parameters it is usually very few in number, his objects tend to exist in a perpetually semiactivated state; they remain on the periphery, never coming clearly into focus. In short, priming is an intrinsic characteristic of Dutilleux's processes of progressive growth.

Priming and Foreshadowing

To frame it in a narrative context, the conscious act of priming is the act of foreshadowing. Just as priming is one manifestation of memory, so too is foreshadowing. It is true that foreshadowing is the act of projecting into the future, but, of course, in order for the narrative technique to work, the mind needs to refer to the past when the foreshadowed event occurs. If we return to Dutilleux's thought that when he thinks of memory, he is actually "thinking...of some sound event, sometimes very short and not

⁴¹ Dutilleux and Glayman, *Music – Mystery and Memory*, 53. See also, Chapter 3, pages 32 and 33.

instantly identifiable, which will lodge in the listener's unconscious and play its role retrospectively," it becomes clear that he is foreshadowing—or, to use Dutilleux's term, "prefiguring"—future events that will become important; events that will feel as though they have always been there, although the listener may not know why those events should feel so.

This aspect of Dutilleux's approach to memory connects back to Proust's previously discussed fleeting introduction of narrative elements that will prove to be significant later on. In fact, for an excellent example of priming/foreshadowing in Dutilleux's music, we can return to the Jeté Object that featured in Figure 5.6, and which referred to the above-mentioned narrative correlation between Proust and Dutilleux (see pages 114-116). In this example, the initial Jeté Object, buried within the texture of the Nocturne, introduces to the listener's mind, the idea of the jeté bowing as a specific parameter. Seemingly unimportant, this single parameter attaches itself—or rather, is transferred—to numerous objects throughout the course of *Ainsi la nuit*. As a result, the initial idea, which primed the jeté parameter, and which, initially existed on the edge of conscious awareness in a semiactivated state, slowly moves into a higher state of activation with each new instantiation, until by the end of the string quartet, the jeté parameter, having become highly activated through repetition, finally comes fully into the listener's consciousness with the final gestures of the work. Just as the narrative technique of foreshadowing lends an air of inevitability to an important event within a novel (like the *moments bienheureux*), so too will the listener, as a result of the processes of progressive growth, feel as though a musical gesture, idea or object has always existed, though they will not be able to pinpoint when it actually came into being.

Association, Progressive Growth and Involuntary Memory

Finally, we return to the idea, introduced at the beginning of Chapter 3, that progressive growth produces in Dutilleux's music a temporal and spatial dimensionality that reflects Proust's concept of involuntary memory. Because an episode of involuntary memory is reliant on a specific type of associative trigger, in order to better understand involuntary memory we will first briefly look at different cueing processes.

Cueing Processes

Cognitive psychology separates cueing processes into three categories: **recollection, reminding** and **recognition**. Recollection results when we consciously try to remember something; it is an act of conscious recall. Reminding and recognition are unconscious neurological processes and occur automatically and continuously throughout the course of everyday life. Reminding results when something "in the environment automatically cues an associated memory of something else."⁴² For example, sticking your hand in your empty pocket reminds you to grab your keys before you leave the house. Recognition results when something acts as its own cue. Put differently, we recognize a friend because the present image of that friend maps onto past memories of that same friend.⁴³

Voluntary and Involuntary Memories

Proust, as you may recall, viewed memories as coming into being either voluntarily or involuntarily.⁴⁴ According to Proust, voluntary memories were actively recalled, and as a

⁴² Snyder, 70.

⁴³ Ibid., 70.

⁴⁴ See Chapter 2, pages 25-28.

cuing process, could be considered an instance of recollection. To review, of the two memory types, Proust regarded voluntary memory as inferior. He considered it utilitarian, providing the mind with objective details of past events, which while useful, failed to recreate the subjective aspects of those same events. In other words, Proust believed that when one actively recollected a past event, one's mind collected the data, but lost "the sensory and experiential detail that existed in the original moment," details that not only provided practical knowledge but also emotional context.⁴⁵

Unlike voluntary memory, involuntary memory is an act of unconscious recall. Cued by an association with some aspect of an experience in the present moment, an involuntary memory could be considered an instance of reminding. As you may remember, Proust viewed involuntary memory as the superior form of memory retrieval, primarily because, with the appropriate cue, an episode of involuntary memory could bring *all* aspects of a past experience into the present, effectively placing past and present on a "uniform plane."⁴⁶

Proust compared voluntary memory to a "snapshot," a flat representation of an isolated moment in time that presented the viewer with only one physical and temporal perspective—basically, voluntary recall lacked the dimensionality that was required to truly understand a character or event, it lacked the "volumes" supplied by an episode of involuntary memory. This view provides a connection back to Dutilleux's view of the traditional theme in relation to his processes of progressive growth.

⁴⁵ Epstein, 218. See also, Chapter 2, page 27.

⁴⁶ See Chapter 2, page 25.

Though never stated outright, Dutilleux must have viewed the traditional theme in much the same light as Proust viewed voluntary recall, the traditional theme presenting, in all its recognizability, to the listener as a single photograph presents to the viewer—as physically and temporally “flat.” Instead, we find Dutilleux seeking to create with his musical objects, and through the various techniques that comprise his processes of progressive growth, a feeling of temporal depth. For example, we find that many of Dutilleux’s formal techniques—the large-scale non-linear time schemas, the multi-level application of compound-rotation/reordering, the discursive phrasing and the superimposition of separate genotypes and phenotypes—imitate, in one manner or another, the formal techniques that Proust used to create volume through multiplicity and simultaneity. Additionally, we find clear technical connections between the ways in which Proust sought, with his use of metaphor and his foreshadowing of events, to build associative connections between narrative elements across temporal distances, and the ways in which Dutilleux sought to build similar associative connections across time by transferring phenotypical parameters between musical objects and by prefiguring later events. Most importantly, Dutilleux’s processes of progressive growth, as applied to his musical objects, all realize in one way or another the narrative aesthetic that finds its embodiment in Proust’s concept of involuntary memory: that to be deeply understood all elements within a narrative—indeed the narrative itself—need to be viewed as multiple, that all moments and memories should be “available to the mind simultaneously, arrayed, like the notes of a familiar piece of music, in space rather than in time.”⁴⁷

⁴⁷ Landy, 120.

Chapter 6

Dutilleux's Compositional Techniques: Referential Devices

Referential devices provide a stark and perhaps necessary contrast to Dutilleux's processes of progressive growth. As the preceding chapters have shown, musical objects being transformed under processes of progressive growth transform continually—they are inherently dynamic. The transformation of these objects also results in varying degrees of linearity, for even when the internal elements of an object are being presented as a series of unordered permutations, or when different objects are being externally “rotated” with one another and linear time is being rearranged, traceable variations are still taking place, and an underlying linearity remains perceivable. Where musical objects undergoing the metamorphic processes of progressive growth are characterized by dynamic linearity—by an unceasing process of transformation—the musical objects known as referential devices are characterized by static non-linearity.

Referential devices tend to be clearly recognizable, and therefore the majority of parameters that comprise a referential device—both its genotype and phenotype—tend to be fixed, with little to no change occurring from one instantiation of the referential device to another. Additionally, referential devices tend to be repetitive—Dutilleux nodded to this aspect of his language by also referring to referential devices as “obsessional sounds.”¹

The recognizability of referential devices is, of course, a function of their repetitiveness. Remember that when we initially perceive a musical object, it is experienced first through short-term memory, and in order for that object to become

¹ Mari, 100.

stored in long-term memory it must be repeated. Remember too, that for the object to be cued into conscious awareness, the parameters of each repetition must map onto the same areas of the brain that stored the previous instantiation(s). This is the cognitive mechanism that Dutilleux is exploiting with referential devices. In other words, through static reiteration and repetition, Dutilleux is designing these devices specifically to be memorable.

The intentional recognizability, and therefore memorability, of referential devices connects us back to two previous discussions. First, because of the parametric stability that exists between instantiations, the objects that fall into the category of referential devices have more in common with the traditional eighteenth- or nineteenth-century theme or motif than do objects that transform through processes of progressive growth. In fact, Dutilleux refers to one type of referential device as a “chordal theme.”² Second, to reuse a now well-worn phrase from previous chapters, referential devices always appear “in the same basic guise,” and as previously mentioned, this lack of dimensionality connects referential devices to Proust’s views on voluntary recall and to the metaphor of the single snapshot. For example, where the continually transforming musical object presents the listener with a series of different instances, or “snapshots,” upon which to build a temporal and multi-perspectival composite of the underlying structure, the referential device presents only as a single, isolated moment—or snapshot. The referential device refers not to other related moments, but only to itself.

However, in their recognizability and memorability we find purpose: referential devices provide (as the name implies) points of *reference*—that is, referential devices allow

² Mari, 100.

us to gauge where we are in a piece of music, to locate ourselves within the *structure* of the work. In other words, referential devices are structural devices. They provide a static framework around which dynamic and continually transforming musical objects can move.

Structural notes

There are two basic types of referential devices, comprised of either structural notes or structural chords. Dutilleux refers to these structures as “pivot notes” and “pivot chords.” However, Dutilleux’s terminology can be misleading, as the pivot note and the pivot chord do not function in *any* traditional way. For example, Dutilleux’s pivot notes should not be confused with the traditional eighteenth- and nineteenth-century “pivot note,” in which a single pitch is used to transition between harmonies and tonalities, and the “pivot chord” does not perform the same function as a predominant chord in tonal harmony. While I tend to use the terms “structural note” and “structural chord,” it should be understood that throughout the course of this chapter “structural note” and “pivot note” are interchangeable, as are “structural chord” and “pivot chord.”

Large-scale structural notes

Structural notes can be further subdivided into two types: **large-scale** and **small-scale structural notes**, and we find in a program note from his *Deuxième Symphonie*, an excellent description of the large-scale structural note by the composer: “In the second section in particular, a single, insinuating note acts as a pivot, a central point, and is ‘illuminated’ in an infinite variety of ways, irradiating the ensemble of instruments.”³ We can add to Dutilleux’s explanation by describing the large-scale structural note as a single,

³ Cited in Potter, 106.

recurring pitch—a structural point of reference—that often runs “horizontally” through an entire section, and around which the remainder of the concurrent music occurs, either above or below. The predecessor of the large-scale structural note would be the pedal tone, and specifically Debussy’s application of the pedal tone, for in Debussy’s pedal tone we also find a single pitch providing structure, “functioning as an anchor in an otherwise unstable context.”⁴ However, Dutilleux’s structural notes are not confined to the lower reaches of the gamut. Just as often, they will sit drone-like in the middle- or upper-registers.

The excerpt below provides an excellent example of one such structural note. Appearing in Dutilleux’s second piano prelude *Sur un même accord* (1973, revised 1977), this structural note, a D#4, emerges from a series of descending chords. From that point on, the D#4 remains, providing a horizontal point of reference around which the pitches of the prelude’s final measures move above or below.

Ex. 6.1 Dutilleux: *Sur un même accord* (m 45 to end).

⁴ Potter, 96.

(Ex. 6.1 continued)

(comme une rumeur)

p

D#4 implied

8 bas.

D#4 implied

8 bas.

8 bas.

8 bas.

(lointain)

ppp

(lointain)

ppp

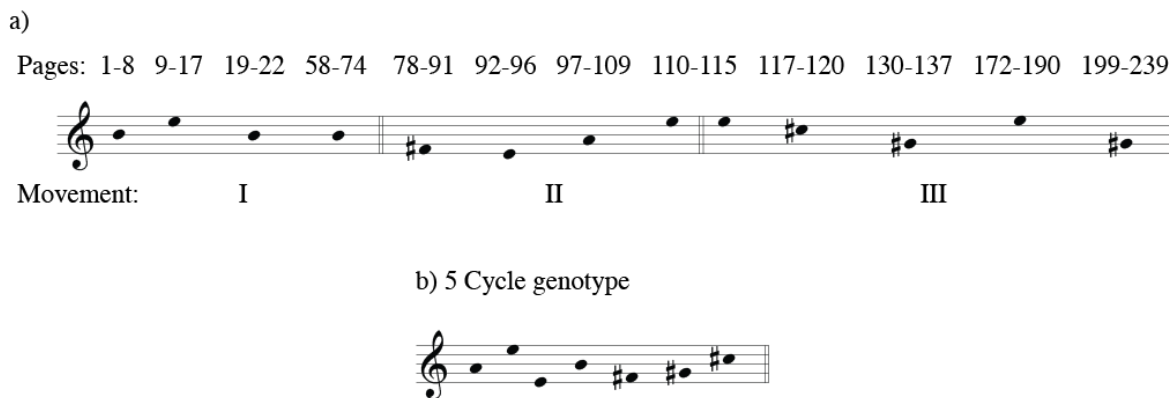
8 bas.

(1977)

Structural notes need not be confined to a single pitch either. In Dutilleux's larger, multi-movement works they will often shift, outlining each section with a new structural note, and creating a large-scale pitch structure of their own. Below, Figure 6.1 reproduces Caroline Potter's analysis of large-scale structural notes as found in the different sections and movements of Dutilleux's *Deuxième Symphonie* (1955-59). Notice that, just as interval cycles in Dutilleux's music guide his pitch choice at the level of the musical object, so too do

they govern the shape of his pitch macro-structures, in this case, outlining a partial 5 Cycle framework across the three-movement work (Figure 6.1b).^{5, 6}

Fig. 6.1 Large-scale structural note framework from Dutilleux's *Deuxième Symphonie*.



Small-scale structural notes

Small-scale structural notes provide structure and stability at the phrase level, and are often paired with the previously-mentioned discursive and ever-expanding phrases that Dutilleux is known for.⁷ In another program note, this time from *Ainsi la nuit*, Dutilleux describes the movement Constellations as one in which “sound events circulate and build up around a central pitch (A), which is an intense source of attraction and imposes itself forcefully on the discourse...”⁸ In this description, the structural note is A and the key word is *attraction*. Phrases will both rise above and fall below this pitch, sometimes ranging quite

⁵ This example reproduces (with a few alterations) Example 4.7 from Caroline Potter's book *Henri Dutilleux*. Potter, 113.

⁶ Because any major scale is equivalent to seven adjacent pitch-classes from the 5 Cycle, it is also possible to interpret this collection of pitches not as a 5 Cycle subset, but as implying A major, which is Caroline Potter's interpretation.

⁷ See Chapter 5, pages 112-114.

⁸ Cited in Potter, 114.

far, but they will always be pulled back to the center of attraction, ending in the same place they started.⁹

Small-scale structural notes, in combination with Dutilleux's discursive and melismatic phrases, are examples of *axial melodies*. Perhaps one of the oldest methods for organizing melodic writing, the idea of a single pitch providing a structural focal point for the surrounding melodic writing connects this technique to medieval music, the structural note performing the same function as the reciting tone in chant.¹⁰ While the influence of medieval church music on Dutilleux's structural language is manifested in the small-scale structural note, and in titles like *Incantatoire* from his orchestral work *Métaboles* (1959-64), perhaps the most direct (and more contemporary) influence regarding Dutilleux's use of *axial melodies* is Stravinsky.¹¹

The influence of Stravinsky on Dutilleux has been pointed to by other theorists and is revealed not only in Dutilleux's rearranging of linear time, but also in the small-scale structural note.^{12, 13} The most recognized axial melody in Stravinsky's music is perhaps the opening bassoon line from the *Le Sacre du printemps*. Below, Figure 6.2a presents the clarinet solo from the opening measures of the first movement of *Métaboles* (the aforementioned *Incantatoire*), Figure 6.2b presents the subsequent trumpet solo from the

⁹ Despite Dutilleux's use of the term "central" in the quote above and in the quote on page 135, structural notes are rarely (if ever) the physical "center" of a section or melody. They are not, for instance, reflection points. And while Dutilleux does make use of actual reflection points (discussed in Chapter 7 in the section on palindromes), when it comes to structural notes, the surrounding music is almost always asymmetrical and often markedly so.

¹⁰ Snyder, 154.

¹¹ Potter, 96-97.

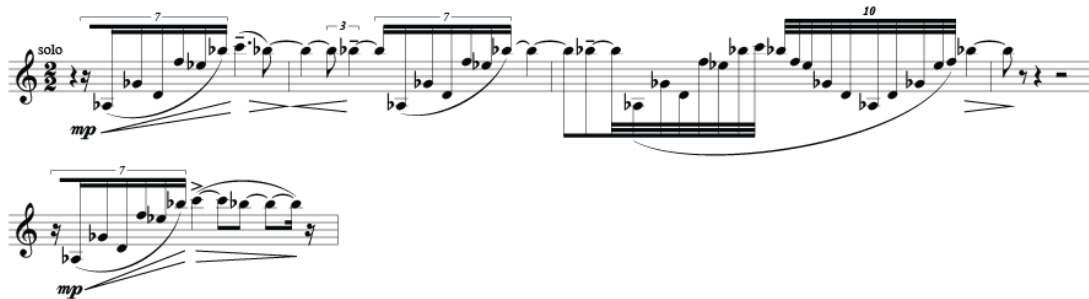
¹² Ibid., 96-97.

¹³ See Chapter 4, pages 95-97.

same movement, and Figure 6.2c presents the bassoon solo from *Le Sacre du printemps*. The structural notes from the clarinet line in 6.2a and trumpet line in 6.2b are Bb5 (written) and E5 respectively; the structural note in the bassoon line from *Le Sacre du printemps* is A4. Between each iteration of their respective small-scale structural notes, each solo line displays the same type of quasi-improvisational and melismatic phrasing that is usually associated with medieval chant and with axial melodies in general. Additionally, with these examples, the small-scale structural note provides a framework, a static point of departure and return for objects that, between each instance of the structural note, transform in one way or another (in each case, the examples also exhibit the characteristics of compound-rotation at the individual pitch, and pitch-cell level).

Fig. 6.2 Comparison of axial melodies in Dutilleux's *Métaboles* and Stravinsky's *Le Sacre du printemps*.

a) Dutilleux: *Métaboles* (clarinet solo, Incantatoire, mm. 10-14)



b) Dutilleux: *Métaboles* (trumpet solo, Incantatoire, mm. 21-34)



c) Stravinsky: *Le Sacre du printemps* (bassoon solo, mm. 1-3)



Structural chords

Structural chords could be described as structural sound events (or objects) that mark a before and after—that is, unlike the structural note, which sounds continuously and therefore provides structure throughout a section (and to some degree defines the section), the structural chord is characterized by brevity, it marks a specific point within the course of the work. Put differently, the structural chord could be thought of as a momentary vertical pitch structure around which past and future events occur.

Also, structural chords are highly recognizable; they are overt memory triggers, designed to cue the listener's memory of the previous instantiation of that chord, they "evoke a feeling of nostalgia in the listener" as Dutilleux puts it.¹⁴ So, where the structural note tends to eventually "disappear" into the texture of the music that surrounds it, the structural chord tends to "stick out" from the texture that preceded it, and the texture that will follow, the individuality of the parameters that define the structural chord contributing to its overt recognizability.

In contrasting the structural chord with progressive growth, Dutilleux indirectly points to its role in triggering memory when he says, "At other times you want to be entirely obvious, for example when you use 'pivot chords.' Imagine a chord that returns in a striking fashion a long time after it was heard for the first time in the same register. From that moment this chord has a special function and potential. This often happens in 'Le Double' as well as in other works, in *Métaboles* and in my string quartet *Ainsi la nuit*."¹⁵

¹⁴ Dutilleux and Glayman, *Music – Mystery and Memory*, 53.

¹⁵ Ibid., 52.

As previously mentioned, part of what makes referential devices so recognizable is that the genotypical and phenotypical parameters that define each referential device tend to be fixed. And, as Dutilleux mentions in the quote above, in the case of the structural chord, fixed register is particularly important. Essentially, because register is fixed, the structural chord could be considered an object “frozen” not only horizontally in the flow of time, but also vertically in space. The fact that structural chords are fixed across all four dimensions makes them that much more memorable, and that much more effective as a structural signpost. In order to gain some insight into the importance of this particular parameter, we could compare the structural chord to the pitch superstructure, which was discussed in Chapters 3 and 4.¹⁶

Both the structural chord and the pitch superstructure rely on an underlying vertical pitch structure. Additionally, the pitch superstructure often starts as a fixed-register structure. However, as was shown with the fixed-register pitch super-structure that supports the first portion of the Nocturne in *Ainsi la nuit*, it usually transforms by transposing out of its original octave. As soon as that happens, an important characteristic of the initial section—the fact that specific pitch-classes appear only at specific transpositional levels—disappears. Furthermore, the pitch superstructure is never revealed at once, but rather is revealed over time.¹⁷ So, in order to view a pitch superstructure through analysis, one must “rebuild” it by compiling all of the pitches that are presented over the course of the section. This is not the case with the structural chord. Instead, with the structural chord, what you see is essentially what you get.

¹⁶ See Chapter 3, pages 40-41, and Chapter 4, pages 52-56.

¹⁷ Ibid., 40-41 and 52-56.

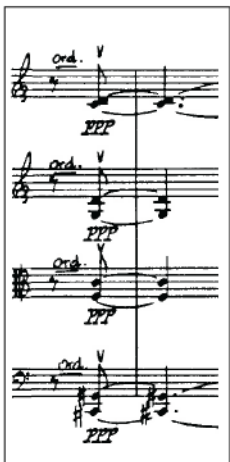
Finally, in order to better “evoke a feeling of nostalgia in the listener,”—in order to better cue the listener’s long-term memory—the static vertical sonority is often paired with a recurring rhythmic, and sometimes melodic contour, which adds to the memorability of the structural chord. It is in pairing the fixed-register vertical pitch structure with a rhythmic and melodic gesture that we get Dutilleux’s other term for the structural chord, the previously mentioned “obsessional sounds.”

Fig. 6.3 Three instantiations of the “nuit chord.”

“nuit chord”
instantiation 1
Introduction, m 1



“nuit chord”
instantiation 2
Litanies, mm 79-80



“nuit chord”
instantiation 3
Temps suspendu, m 1



reduction of the
“nuit chord”



The figure above provides the first of two structural chord examples and presents three instantiations of the “nuit chord.” Notice that register, and therefore voicing, is fixed. Additionally, notice that while there is no melodic motion associated with this specific chord, it is paired with a basic rhythmic gesture—a “long” followed by a “short”—which occurs in instantiations 1 and 3. Each time the rhythmic gesture returns alongside the fixed voicing and register that characterizes the “nuit chord,” memorability is increased, creating a structure that is clearly associated with its past instantiations, and a structure that marks a formal boundary because the phenotypical and genotypical parameters of the obsessional

gesture are unique in relation to the sections that preceded it and the sections that will follow.¹⁸

Below, Figure 6.4 presents three instantiations of the “chordal theme” from *Métaboles*. Dutilleux’s “chordal theme” could be defined as a short, fixed progression of fixed-register structural chords. The chordal theme from *Métaboles* is also comprised of a basic rhythmic motif: two “longs” followed by one “short,” and a melodic gesture: a repeated chord followed by an ascending chord progression. It also pairs the repeated chord with the longer rhythmic durations, and the ascending chord progression to the shorter note value.¹⁹ Of course, with each instantiation the register and voicing of each chord is fixed, as is the orchestration. And while it is true that instruments are added to the second and, in particular, the third instantiations of the chordal theme, the “core” progression remains entirely unchanged. For example, in instantiation 3, a solo violin, solo flute, harp, timpani, and three trombones have been added to the chordal theme—one could say these new instruments “surround” the original idea, which is circled in gray. Nevertheless, the vast majority of the other instruments are playing the same series of fixed register chords, and in the same fashion, as they did with the two previous instantiations. This continued return to a fixed structure again serves the purpose of providing an “entirely obvious” signpost that the intervening music can move toward and away from—it acts as a point of reference in a sea of continuously transforming ideas. With

¹⁸ While there is no melodic motion associated specifically with the “nuit chord,” there is a melodic gesture that often follows it. This ascending/descending gesture is also fixed register, but eventually begins to expand in a way that places it formally into the category of multiply-directed time—a formal schema that is associated with progressive growth. Essentially, this expansion moves the gesture away from referential device and into a technical gray area. As such, it will be discussed in the following chapter.

¹⁹ Like the previous example of the “nuit chord,” we could also consider the combination of chord progression, melodic gesture and rhythmic gesture that characterizes the chordal theme from *Métaboles* an “obsessional sound.”

Métaboles in particular, the three instantiations of the chordal theme provide a “recursive bookend,” bracketing both the beginning and the end of the first movement and the beginning and end of the entire work.²⁰

Fig. 6.4 Three instantiations of the *Métaboles* “chordal theme.”

Métaboles chordal theme
instantiation 1

I. Incantatoire, mm 1-6

Métaboles chordal theme
instantiation 2

I. Incantatoire, mm 49-55

²⁰ It should be noted that, for the sake of space, the reduction of instantiation 3 presents only the first few measures of that particular instantiation. However, the order of chords in the second half of instantiation 3 (including the grace note gesture) is essentially the same as in the preceding instantiations.

(Fig. 6.4 continued)

Métaboles chordal theme
instantiation 3

V. Flamboyant, mm 127- 133

Embedded pitch structures

We could describe the third instantiation of the chordal theme from *Métaboles* as emerging into a preexisting texture, and therefore as being embedded into that texture. However, as just mentioned above, the return of the chordal theme is very clear to the listener. Like all of the preceding events or objects that could be described as referential devices, the series of structural chords in *Métaboles* are intentionally recognizable. In contrast to the chordal theme and indeed all of the previously discussed referential devices, the embedded pitch structure relies on subtlety; it is, to use one of Dutilleux's phrases, "...a hidden structure[, which] gives the form its solidity."²¹

Embedded pitch structures could alternately be described as embedded pitch cells as they are comprised of a limited number of notes, usually three to five. These structures

²¹ Dutilleux and Glayman, *Music – Mystery and Memory*, 77.

are often, like so much of Dutilleux's music, based upon an interval cycle, although they can also take the form of a melodic fragment—a musical idea that we might call a motif if it were more easily perceived. This fragment or interval cycle subset, will then appear, throughout the course of the work, discreetly embedded into several separate objects, providing structural continuity across the course of the work, and binding together seemingly different ideas and sections. Finally, an important aspect of the embedded pitch structure, an aspect that places it squarely in the category of referential device, is the embedded pitch structure is always a fixed register structure. Simply put, because the embedded pitch structure is always comprised of the same collection of pitch classes appearing at the same transpositional level, it acts, like the structural chord, as an associative cue, only on a much subtler level.

Fig. 6.5 The embedded 7 Cycle that connects the Nocturne to Constellations.

The image displays a musical score with two main sections. The top section is titled "I. NOCTURNE" with the tempo marking "Asses leant (♩ = 60)". It features a melodic line with various articulations like "Arco", "Pizz", and "Arco v", and dynamic markings such as "mp" and "mf". A circled number "1" is placed above a specific note in the first staff. The bottom section is titled "(X. CONSTELLATIONS)" and is marked with a circled number "10". It consists of a complex, multi-layered texture. A "7 Cycle" is indicated between the two sections, with arrows showing the relationship between the circled note in the Nocturne and the corresponding notes in the Constellations section. The Constellations section includes dynamic markings like "mf" and "mf".

The figure above returns to the 7 Cycle that supplies the scaffolding upon which the Nocturne's opening 2 Cycle pitch superstructure is built.²² This 7 Cycle is an excellent example of an embedded pitch structure, for while it does function as part of the initial pitch superstructure, that initial superstructure eventually transforms through segmentation and recombination and through transposition, leaving the 7 Cycle behind. Nevertheless, the 7 Cycle remains "in the background," reappearing several movements later in *Constellations*, fixed in its original register and connecting the music of *Constellations* to the music of the Nocturne, and later to the music of *Temps suspendu*.



Like Proust we can use metaphor to explore the relationship between those musical objects that are affected by the processes of progressive growth and those that are labeled referential devices. As suggested in Chapter 5, Dutilleux's continuously transforming musical objects could be equated with Proust's characters—that is, they present to the listener as Proust's characters present to the reader, as dynamic and multifaceted beings, capable of multitudes. Likewise, referential devices could be equated with the narrative backdrop. They are the static objects—the buildings and the landscapes around which dynamic events unfold. And, like the buildings and landscapes that provide the narrative backdrop to our lives, Dutilleux's referential devices provide a static context, they create a "place" and "time" that allows the listener to locate themselves within the work, just as we locate our past experiences by referring to the place and time those events occurred.

²² See Chapter 4, pages 52-56.

Chapter 7

Dutilleux's Compositional Techniques: Gray Areas

Perhaps one of the most interesting conceptual “places” in Dutilleux’s music is the intersection of progressive growth and referential devices. Up to this point, we have discussed progressive growth and referential devices in fairly black and white terms—that is, objects are either highly dynamic and continuously transforming, or they are static, providing structure and presenting in only one shape. In truth, like the previous discussion of multiply-directed time and moment time, stasis and dynamism exist on a spectrum. Accordingly, we find numerous gray areas in Dutilleux’s music, “places” where objects either move across the spectrum from stasis to dynamism, or “places” where they simultaneously exhibit characteristics of both.

Moving across the spectrum: linear and non-linear change

We could relate the changes in static musical structures to the metaphor that closed the previous chapter and that compared referential devices to a narrative backdrop.¹ For example, entropy cannot be held at bay indefinitely, and so, the buildings and landscapes that provide the backdrop to our lives, those structures that we rely (and relied) on to locate ourselves in space and time, will of course also change to some degree over time. To continue the metaphor, structures will deteriorate, and (possibly) will be maintained or rebuilt; they will, to put it differently, present in slightly altered forms over time, while retaining their basic shape. Furthermore, we never perceive a static structure in life the

¹ I realize that if something is truly “static” it cannot “change.” That is, however, the point of this section: to look at how those objects, which seem to present as static, actually do change.

way we perceive a structure in a snapshot, which really does (as Proust points out) present both character and structure from one perspective. Rather, as dynamic beings, we have the ability to move around the structure, to view it from different angles and perspectives. Essentially, we perceive changes in static structures, just as we perceive changes in dynamic ones, in two ways: temporally—that is, over time, spatially—from different angles or perspectives, or we can perceive both simultaneously.

Similarly, when we perceive change occurring in Dutilleux's static musical structures, his referential devices, we perceive it in the same basic ways: either temporally—that is, linearly—with change occurring, uninterrupted, over larger expanses of time; or spatially, by presenting the listener with a “different side,” or a different view (or views) of the underlying static musical object. In the last instance, referential devices that change as a result of perspective tend to do so non-linearly, every altered instantiation occurring at a separate point in the work and not necessarily in any type of predictable (and therefore, linear) order. As such, we can connect this type of perspectival change to the concept of compound-rotation, and to the associated and primarily non-linear series of unordered permutations found in progressive growth.

It's important to note that above, we have discussed changes to Dutilleux's static musical structures, not metamorphoses or transformations. There is an important and instructive distinction to be made here with regard to verbiage. Namely, while Dutilleux's dynamic objects undergo a *metamorphosis*, a *transformation*—that is, his dynamic objects start as one thing, and then become something else—his static objects, his referential devices, *change*. In other words, while their appearance becomes altered, referential devices always remain recognizable as the same thing. This has to do with the number of

parameters, phenotypical or genotypical, that are being altered at any given time. For instance, on the one hand, when objects are transforming through the processes of progressive growth, generally speaking only one or two of the parameters that combine to characterize the original object will be maintained throughout the course of its transformation.² On the other hand, the exact opposite is true of referential devices, for when these static objects do change, either over time or through shifts in perspective, the *change* is usually restricted to one or two of the objects constituent parameters at any given time.

Finally, notice that to this point, objects moving across the spectrum in the other direction—from dynamic to static—have not been mentioned. This is because, in Dutilleux's music, we mostly find a tendency toward static objects becoming dynamic. In other words, referential devices tend to provide a point of departure, rather than the other way around. This has to do with progressive growth as an overarching concept—that objects progressively *grow*, and become either physically larger, or conceptually larger by producing a growing number of varied instantiations.³ In this context, we could then think of all objects, including referential devices, as changing or being transformed through processes of progressive growth (hence the connection above between compound-rotation/unordered permutations and the shifts in perspective that accompany some referential devices), with two significant differences between changing static objects and transforming dynamic objects being first, the amount with which the processes of

² See Chapter 5, pages 127-128.

³ See Chapter 5, pages 116-117.

progressive growth are applied to the object; and second, the speed with which the change or transformation occurs.

Temporal gray areas: linear parametric change

When discussing referential devices that change linearly over time, we are generally discussing structural notes (Dutilleux's "pivot notes") in one form or another, their characteristic and near constant reiteration over the course of a section allowing for the perception of that change. For example, in chamber and orchestral settings, the large-scale structural note is often treated like a *klangfarbenmelodie*, passed from one instrument, or group of instruments, to another.

Below, Example 7.1 presents the structural note D4 as it appears in the opening measures of *Ainsi la nuit*, first as part of the "nuit chord;" second, as an individual note, played *ordinario* by the second violin; third, as a harmonic, played by the cello; followed by a momentary appearance as a *sul ponticello* tremolo in the first violin; and finally, briefly, appearing *pizzicato* in the viola and second violin before disappearing into the thickening texture of the Introduction's final measures. While the shifts in timbre are subtle, they are still clearly audible, as is the linearity of the change those shifts produce. Additionally, notice that although the phenotypical parameters of dynamic range and attack change, the amount of change associated with those parameters is minimal. For instance, the D4 structural note in this section is generally marked with some form of piano dynamic—ppp, pp or p. Only once—just before Rehearsal B—does it change across time to a forte dynamic. Conversely, timbre is the one parameter associated with the D4 structural note that does exhibit perceivable change over time. And of course, pitch structure does not change either.

Simply put, confining parametric change to a single phenotypical parameter results in a structure that maintains clear recognizability throughout the course of the section.

Ex. 7.1 Dutilleux: *Ainsi la nuit* (Introduction, Reh. A-C). Perceivable linear change in the D4 structural note.

The image shows a musical score for Dutilleux's *Ainsi la nuit* (Introduction, Reh. A-C). The score is divided into two systems. The first system (A) includes staves for Violon 1, Violon 2, Alto, and Violoncelle. It features dynamic markings like *ppp*, *pp*, *f*, and *p*, and tempo markings like "Libre et souple ($\text{♩} = 66$)". The second system (B) continues the staves with markings like "morendo", "Arco", and "Pizz". The score illustrates a linear change in the D4 structural note across the section.

Another example of linear change as applied to structural notes occurs with the parameter of register. While fixed register is often a characteristic of Dutilleux's static objects, with both small-scale and large-scale structural notes he will often expand the structural note in question across several octaves, or conversely, contract from several octaves to a single pitch within the course of a section or work. Again, the majority of the referential device's parameters (especially pitch class) are maintained, allowing for the clear perception of the structure.

Ex. 7.2 Dutilleux: *Le Jeu des contraires*, (mm 1-8). Registral expansion of the G#4 structural note.

Librement
♩ = 40 (Penser la pulsation à la croche, soit ♩ = 80)

The musical score is written for piano and consists of four systems. The first system is in 3/4 time and begins with a melodic line in the right hand. A shaded area highlights the initial expansion of the G#4 structural note. The second system continues this expansion, with a large shaded area covering measures 3 and 4. The third system shows further expansion, with a shaded area in measure 8. The fourth system shows the final expansion, with a shaded area in measure 8. The score includes various dynamics (p, mf, pp, m.d.) and articulations (accents, slurs). The time signature changes from 3/4 to 2/8 in the fourth system.

Above, Example 7.2 presents the first page of Dutilleux's third piano prelude, *Le Jeu des contraires* (1988). In this example, Dutilleux initially expands the structural note, G#5, which appears in the opening measure, down one octave to G#4 before expanding, from that position in the gamut, outward across six octaves, from G#1 to G#6 in measures 3 and 4. He then repeats the process in a temporally more compressed fashion in measure 8.

With this example, we see again how the majority of parameters, with the exception of register and rhythmic contour, are continued from one instantiation to the next.

While the parameters of register and timbre are the most likely parameters in Dutilleux's referential devices to move across the spectrum from static to dynamic, we do also see linear changes in dynamics, mode of playing, duration, etc., although, as mentioned before, multiple parametric changes to the referential device rarely happen simultaneously.

Perspectival gray areas: non-linear parametric change

Just as linear change to a specific parameter is generally linked to large- and small-scale structural notes, so too are non-linear, perspectival changes linked to structural chords and chordal themes. The connection between these vertical referential devices and non-linearity, to some extent, is a natural result of both their brevity (to use a previous description) and the irregularity with which they occur. Put differently, because any iteration and/or repetition of these chords does not extend beyond a few measures at any given moment in a work, linear change over time is difficult to perceive.

We return to the structural chord from *Ainsi la nuit*, which was discussed in Chapter 6. Initially, Figure 6.3 provided three nearly identical instantiations of this chord in order to make the point that fundamentally, referential devices are static structures.⁴ However, the fact is that over the course of the entire string quartet, there are actually seventeen separate and slightly varied instantiations of that structural chord and its associated rhythmic gesture.

Below, Figure 7.1 presents each of these instantiations, showing first, the “nuit chord’s” underlying genotype—a 7 Cycle (Figure 7.1a)—then second, providing a reduction

⁴ See Chapter 6, page 143-144.

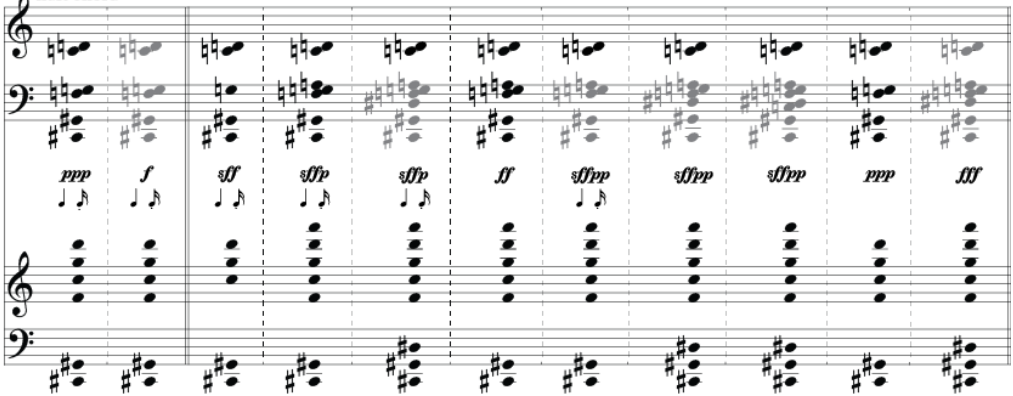
of every instantiation (Figure 7.1b, upper grand staff) as well the segment of the 7 Cycle that is revealed by that particular instantiation of the “nuit chord” (Figure 7.1b, lower grand staff).⁵ Additionally, Figure 7.1b presents several phenotypical characteristics of the different “nuit chord” instantiations, including dynamic, timbre, and whether or not a particular instantiation is accompanied by the aforementioned long/short rhythmic gesture (represented as a quarter note followed by a sixteenth note).

Fig. 7.1 Seventeen “views” of the “nuit chord.”

a) 7 Cycle

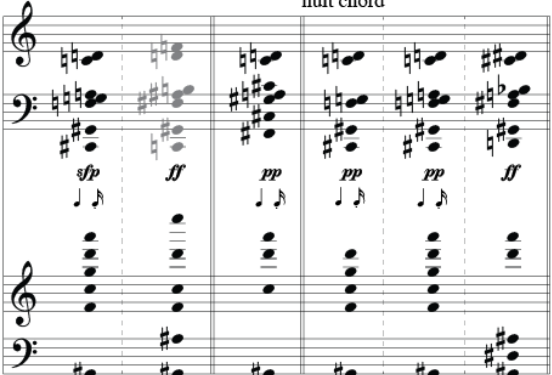


b) Introduction “nuit chord” Litanies “nuit chord”



Rehearsal:	A	B	1,2	4	5	9	10	11	12	13	15
Instantiation:	1	2	3	4	5	6	7	8	9	10	11

Parenthese 4 Constellations Temps suspendu
“nuit chord”



Rehearsal:	A	C	1	21	30
Instantiation:	12	13	14	15	16

gray noteheads = pizz.

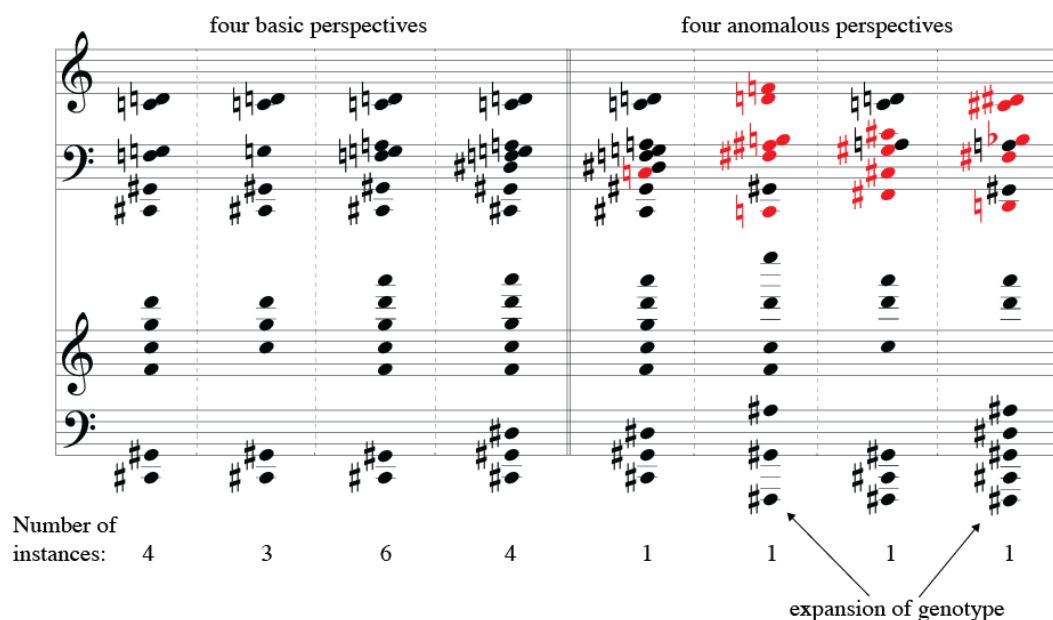
 = structural chords accompanied by “long/short” obsessional rhythmic gesture

⁵ Figure 7.1 and my analysis of the “nuit chord” are based on a similar diagram by Kenneth Hesketh, which appears on page 473 of his article *Backbone of the Night: Mechanisms of Evolution in Henri Dutilleux’s Ainsi la nuit*.

If we look first at genotype, and compare the different instantiations of the “nuit chord” pitch structure that are presented throughout the course of *Ainsi la nuit*, we can say that Dutilleux provides the listener with four basic perspectives of the “nuit chord” genotype, and four “anomalous perspectives,” each perspective characterized by its expression of a unique segment of the underlying 7 Cycle pitch structure (see Figure 7.2, below). And while not every one of the anomalous perspectives adds to our understanding of the “nuit chord” genotype, instantiations 13 and 17 extend the reach of the 7 Cycle “outward,” completing the chromatic aggregate. Taken as a whole, we could view these different genotypical expressions as unordered “vertical” pitch permutations, as presenting the listener with a non-linear sequence of different perspectives of the underlying 7 Cycle genotype.

Phenotypically, the pivot chord’s various surface traits are also continually rearranged—they appear as a series of unordered phenotypical permutations expressed independently of the pivot chord’s genotypical permutations. For example, the “nuit chord” is expressed timbrally in three different ways: arco, pizzicato and as a combination of the two. Also, we find that dynamic marking is not fixed and that the “nuit chord” is only paired with the long/short rhythmic gesture in ten of the seventeen instantiations. Each combination of 7 Cycle segment, timbre, dynamic marking, and pairing (or not) of the obsessional rhythmic gesture can then be considered *a unique perspective*, conceptually the result of a compound-rotation of both genotypical segments and different phenotypical elements.

Fig. 7.2 Basic and anomalous perspectives of the “nuit chord.” “Anomalous” pitches are shown in red.



Unique genotypical and phenotypical perspectives aside, two important phenotypical expressions are maintained throughout all seventeen instantiations of the “nuit chord”: that of register and voicing—the expressed voicing in every case being one in which notes in the lower register are widely-spaced (usually by perfect 5th) and notes in the chord’s upper register are more closely packed together (usually by some combination of 2nd and 5th). Those two fixed surface traits, in conjunction with the fact that fourteen of the seventeen “nuit chord” instantiations express the same basic subset of a single, unique genotype (each expression generally only varying by a single pitch) results in an object whose overall shape could be described as changing but not transforming.

For an additional example of a perspectival gray area involving a pivot chord, we return to Dutilleux’s second piano prelude, *Sur un même accord*, which initially provided

the example of a large-scale—that is, sectional—structural note in Chapter 6.⁶ *Sur un même accord*, which translates as “on the same chord,” appropriately uses the work’s opening structural chord as the primary object upon which to base its transformations. As such, the prelude not only provides an excellent example of changing perspectives on a structural chord through the compound-rotation of genotypical segments and phenotypical parameters, but also of a referential device providing a point of departure—a starting point whereby static objects become dynamic.

Sur un même accord is comprised of four sections: Section 1 is the shortest and is comprised of measures 1 through 6; Section 2 comprises measures 7 through 20; Section 3 elides with the end of Section 2 and comprises measures 20 through 48; Section 4 also elides with the end of Section 3, starting with measure 48 and ending with the final measure of the prelude.

Below, Figure 7.3 presents, by section, the measures of the work in which the structural chord occurs, as well as the measures that immediately follow each occurrence and provide the listener with the different views of the preceding structural chord. In comparing the excerpts in Figures 7.3a-e, we see a formal pattern emerge. First, Dutilleux begins a section by presenting the static vertical structure—the structural chord—in its original or near original form, referred to below as the *ur* form. Second, Dutilleux follows that initial presentation of the *ur* form structural chord with two or three different perspectives of the chord. Third, following the different perspectives of the structural chord, a true transformation of that chord begins. Put differently, Dutilleux presents first the static structure, then begins slowly moving across the spectrum towards dynamism by

⁶ See Chapter 6, pages 135-137.

introducing phenotypical changes to the *ur* form of the chord—in other words, presenting alternative perspectives—then, following the point of departure (circled in gray, below), begins moving quickly into the dynamic end of the spectrum, applying processes of progressive growth to the initially static vertical referential device.

Fig. 7.3 Views of the *Sur un même accord* structural “pivot” chord in Sections 1-4 of that work.

a) *Sur un même accord*, Section 1, mm. 1 - 4

structural chord: *ur* form

perspective 1

les 2 *And.*

perspective 2

perspective 3 point of departure

(libre et flexible)

8

mf

mf

5/4

b) *Sur un même accord*, Section 2, mm. 7 - 9

structural chord perspective 4 near *ur* form

perspective 5

perspective 6 point of departure

ppp (—) *sf*

stacc.

pp

6

sf

4/4

5/4

3/4

(Fig. 7.3 continued)

c) *Sur un même accord*, Section 3, mm. 20 - 23

Souple et expressif

d) *Sur un même accord*, Section 4, m. 48

e) *Sur un même accord*, Section 4, final measures

The only exception to the formal pattern mentioned above appears at the beginning of Section 4, Dutilleux instead beginning the section with a new perspective of the structural chord (see Figure 7.3d). Still, Section 4 does end with an instantiation of the *ur*

form (see Figure 7.3e), and so, Dutilleux does to some degree maintain the pattern in that at least one “edge” of each section is demarcated in some way by the *ur* form of the pivot chord.⁷

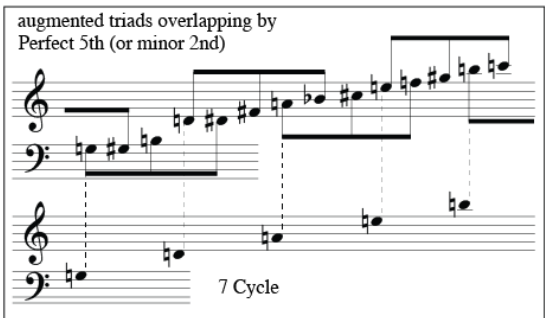
Below, Figure 7.4 provides the same side-by-side comparison of different perspectives of the structural chord in *Sur un même accord* that Figure 7.1 provided for the “nuit chord.” Figure 7.4a shows the structural chord’s genotype—a 1+3+3 Cycle; Figure 7.4b shows how Dutilleux arrived at that genotype by “hanging,” like the fixed-register pitch superstructure presented in Figures 4.2 and 4.3, a series of related pitch collections (in this case augmented triads) from a 7 Cycle scaffolding; Figure 7.4c then shows the ten different perspectives of the *ur* form chord (upper grand staff) along with its expressed segment of the genotype (lower grand staff) and important aspects of its phenotype.^{8, 9}

Fig. 7.4 Underlying interval cycle and ten views of the *Sur un même accord* structural chord.

a) 1+3+3 Cycle



b) augmented triads overlapping by Perfect 5th (or minor 2nd)



7 Cycle



 = structural chords accompanied by “long/medium/short” obsessional rhythmic gesture

 = structural chords accompanied by “long/short” obsessional rhythmic gesture

⁷ It should be noted that the point of departure in Section 4 does continue the pattern established by the previous section, it just begins in the following measure, and therefore doesn’t appear in Figure 7.3d.

⁸ For a review of the pitch superstructure and its 7 Cycle scaffolding see Chapter 4, pages 52-56.

⁹ While there are twelve instantiations of the pivot chord in *Sur un même accord*, the *ur* form of the chord appears three times, resulting in ten *different* instantiations.

(Fig. 7.4 continued)

c)

Section 1 (mm. 1 - 6) Section 2 (mm. 7 - 20)

“ur chord” near “ur chord”

pp pp p pp pp pp ppp

mm: 1 2 3 4 7 8 9

Section 3 (mm. 20 - 48) Section 4 (mm. 48 - end)

“ur chord” “ur chord”

pp pp pp pp ppp

mm: 20 22 48 48 (final measures)

Like the separate instantiations of the “nuit chord,” we find in the figure above that the separate instantiations of the structural chord in *Sur un même accord* present the listener with a non-linear sequence of unique perspectives, each perspective created through a process of compound-rotation—that is, by simultaneously and independently rearranging different phenotypical traits (for instance, register and rhythmic gesture) and different segments of the underlying 1+3+3 genotype. However, unlike the “nuit chord,” we find with this particular structural chord that timbre (of course) is fixed, as is dynamic range—in other words, the pivot chord in *Sur un même accord* is always paired with some form of piano dynamic. Additionally, unlike the “nuit chord,” which only maintains the pitches D and G# across all instantiations, every occurrence of the *Sur un même accord*

structural chord contains the original G-B-F#-Bb tetrachord. Perhaps the most important and conspicuous difference between the presentations of the “nuit chord” and the above structural chord is that, in *Sur un même accord*, register and voicing are no longer fixed across all instantiations. This is worth noting because, as fixed phenotypical parameters, register and voicing are the parameters that Dutilleux points to as important when establishing the “special [associative] function and potential” of a structural chord.¹⁰ Nevertheless, and as previously mentioned above, with the exception of the “near *ur* chord” in measure 7, we still find that register and voicing are indeed fixed when the chord is serving a structural role marking sectional boundaries. And, of course, what these differences really mean is that Dutilleux will approach the creation of structural chord perspectives by rearranging any group of phenotypical parameters.



With both the “nuit chord” and the structural pivot chord from *Sur un même accord*, we see that from one instantiation to another, there is no perceivable linearity—there is no way to determine, based on an established pattern, which view of the chord will be presented to the listener. Rather, the “side” of the vertical structure that we are presented with at any given time within either work is a seemingly random choice. It is worth noting that, with the “nuit chord,” Dutilleux seems to lean more toward the “black notes” as he approaches the end of the string quartet, and with *Sur un même accord*, the views of structural chord in the middle of the prelude tend toward a higher degree of pitch

¹⁰ See Chapter 6, page 141.

density.¹¹ Nevertheless, what both of the preceding examples lack is a clear sense of *directionality*. Linearity requires predictability, which in turn requires directionality—for example: notes moving up in a predictable and logical pattern, or a slow tempo becoming increasingly faster. And while both of the preceding examples have tendencies—that is, they *tend* toward a direction—these tendencies do not establish any kind of pattern that the listener could perceive as moving clearly toward some destination. As a result, and as mentioned at the start of this chapter, while the changes that accompany each “view” of the structural chord’s component parts move it into a gray area and place it outside of the complete stasis that was described in Chapter 6, the fact that structural chords change—or present a different perspective to the listener—through a process of compound-rotation, places those devices closer to the non-linear, moment time side of the disordered time spectrum than large- and small-scale structural notes, which change linearly, over a period of time.

Additionally, we see that even though these structural signposts change, there is still a high degree of parametric similarity between instantiations—that is, the changes are superficial, they affect a small number of phenotypical characteristics, and so, accordingly, the structure retains a high degree of recognizability from one instantiation to the next. In other words, these vertical structures may change, but they don’t transform.

We could compare the changes in structural chords, which result from a process of compound-rotation, to the more dynamic objects, which are also *transforming* through a process of compound-rotation, by returning to the mobile metaphor that was presented in

¹¹ Hesketh’s view of the “nuit chord” is that it progresses clearly from “white notes” to “black notes” with each new instantiation. However, he leaves out several instantiations of the “nuit chord” in his analysis. Introducing those instantiations back into that analysis produces a far less clear progression toward “black notes” and rather produces the “tendency” toward “black note” that I describe above.

Chapter 4.¹² In that metaphor, the compound-rotation of dynamic objects occurs across several hierarchical levels: objects rotate around each other at the sectional level (separate sections presented in green, blue and purple in Figures 4.38a-c); they rotate at the level of the individual object (shown in Figures 4.39a-c); at the smallest level, the component parts of each object rotate as well (shown in Figures 4.39d-f).¹³ Within each level, and with each multi-level rotation, these events or objects cannot be said to have a single definable shape, which is the point of this type of compound-rotation—it creates a dynamic object that is in a continual state of transformation. However, the structure at their center—the structural pole around which they rotate—does have a definable shape. It provides structure and acts as a point of reference, a backdrop “around which dynamic events unfold.”¹⁴ This is the role that the structural chord provides, and like the pole at the middle of the mobile, we can view it from different perspectives, or conversely, we could describe both the pole at the center of the mobile, and the structural chord as static structures that “rotate” in place, structures that present different aspects of themselves to the viewer and the listener, respectively.

Finally, and as previously mentioned, the changes that occur both in Dutilleux’s structural notes and structural chords, in truth result from a lesser application of the processes of progressive growth. Consequently, the compound-rotation of static structural chord elements connects back to Proust’s concept of multiplicity in the same manner that the compound-rotation of dynamic objects does. Namely, by providing the listener with a

¹² See Chapter 4, pages 95-99.

¹³ See Chapter 4, pages 97-98.

¹⁴ See Chapter 6, page 148.

succession of different views or perspectives, and by creating, with each additional perspective, a composite image of a multidimensional, yet fixed and highly recognizable vertical pitch structure.

Between linear and non-linear change: referential devices and multiply-directed time.

We have just seen how Dutilleux changes his large- and small-scale structural notes linearly, and how he changes his structural chords non-linearly. We now look at how multiply-directed time, which could be viewed conceptually as residing between linearity and non-linearity, best describes the way in which Dutilleux slowly reveals the chordal theme that is paired with the “nuit chord.”¹⁵ It is important to note that, as mentioned in Chapter 4, multiply-directed time generally involves multiple linear narrative streams, which are segmented, combined and rearranged into a new narrative sequence that seems to point in multiple, temporal directions.¹⁶ With this chordal theme however, we will be only be following its individual narrative stream—looking at its implied internal linearity, the manner in which Dutilleux rearranges that internal linearity by rearranging the component parts of the chordal theme, and the manner in which Dutilleux interrupts and rearranges its external linearity—its overall presentation—with other musical narratives.

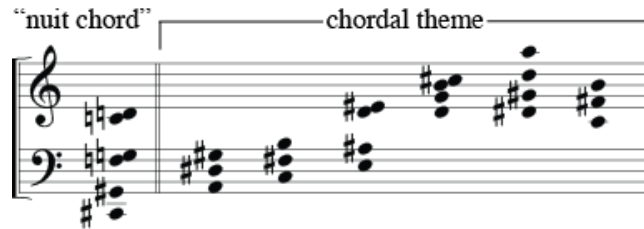
Like the majority of Dutilleux’s referential devices, this chordal theme is a fixed register pitch structure. Comprised of six different chords, the chordal theme in *Ainsi la nuit* could be described as a homophonic gesture that ascends through the first of five chords

¹⁵ While every instantiation of the chordal theme is paired with the “nuit chord,” not every instantiation of the “nuit chord” is paired with the chordal theme.

¹⁶ See Formal/Temporal Types in *Ainsi la nuit*, Chapter 4, pages 92-102.

before descending slightly with chord six. Figure 7.5 presents the chordal theme along with the first instantiation of the “nuit chord.”

Fig. 7.5 “Original” version of the chordal theme in *Ainsi la nuit*.



However, the chordal theme never appears in the manner that is presented above. Instead, we can infer the complete, linear progression of chords from the seven instantiations of the chordal theme that appear scattered throughout the course of the string quartet. In other words, we can “reverse engineer” the original theme, just as we can build a “complete” version of a single vertical pivot chord by combining different perspectives of the chord into a composite. The difference here is that, instead of being presented with the alternate “sides” of a single structure and compiling those sides into said composite, we are being presented with different arrangements of an implied linear progression that conceptually resides “in the background” behind each instantiation of the chordal theme.

The first of these arrangements—labeled below as instantiation 1—appears in the Introduction’s opening measures, inserted between the first two instantiations of the “nuit chord.” Seen earlier in Chapter 4 as an example of contour transfer, instantiation 1 presents the first four chords of the chordal theme, in order, before reversing direction and creating

a palindrome. Conceptually, we could think of instantiation 1 as moving in a “forward direction,” then reversing that direction and moving “backward” in time.¹⁷

Ex. 7.3 Dutilleux: *Ainsi la nuit* (Introduction, Reh. A-B).

instantiation 1

Shown below in Example 7.4, chordal theme instantiations 2, 3, 4 and 5 all appear in *Litanies*, with instantiations 2, 3, and 4 following one other in close succession. Comprised only of the “nuit chord” followed by the first three chords of the progression in ascending order, instantiation 2 could be described as a truncated, or interrupted, version of the theme. Instantiation 3 repeats the four-chord, ascending/descending palindrome order of instantiation 1. Instantiation 4, the longest of the seven instantiations, finally presents all six of the chords that comprise the chordal theme. But, instead of ascending in a smooth, linear fashion up and over chord 5 and down to chord 6, Dutilleux expands the chordal theme by slowly ascending through the progression in two- to five-chord fragments: fragment one ascends, like instantiation 2 of the chordal theme, through the first three chords; fragments two and three oscillate between chords two and three; fragments four

¹⁷ As was pointed out in Chapter 4, the palindrome applies only to the pitches of the chordal theme, and not their phenotypical parameters such as timbre, rhythm, duration or dynamic (See Chapter 4, pages 71-72).

though seven begin the ascent once more, with fragments four and five expanding the progression “forward” to include chords 4, 5 and 6, and with fragments six and seven contracting “upward” until only chord 5 is left in the final fragment. Finally, after a having been interrupted for more than thirty-six measures by material that largely explores the possibilities of the “nuit chord,” the chordal theme returns in measure 50 (Rehearsal 9, Litanies). Instantiation 5, like instantiation 1 and instantiation 3, is a palindrome, but unlike those instantiations, instantiation 5 returns to the truncated, three-chord ascent that characterized instantiation 2 and the beginning of instantiation 4.

Ex. 7.4 Dutilleux: *Ainsi la nuit* (Litanies, Reh. 1-2, and Litanies, Reh. 9).

The musical score is divided into three main sections, each labeled with an instantiation number and a description of the chordal theme.

- instantiation 2**: Labeled "nuit chord" and "chordal theme chords 1 - 3". It covers measures 1 through 3. The notation includes a treble and bass staff with various chords and melodic lines. A circled number 1 is placed above the first measure.
- instantiation 3**: Labeled "nuit chord" and "chordal theme chords 1 - 4 mirrored". It covers measures 4 through 7. The notation continues with similar chordal structures.
- instantiation 4**: Labeled "nuit chord" and "chordal theme chords 1 - 6 ascending fragments". It covers measures 8 through 14. This section is further divided into seven fragments: fragment 1, fragments 2, 3, fragment 4, fragment 5, and fragments 6, 7. The notation shows a more complex arrangement of chords and fragments.

The score is titled "III. LITANIES" and "Allegretto (♩ = ♩)". It includes dynamic markings such as *ff* and *f*.

(Ex. 7.4 continued)

instantiation 5

The musical score for 'instantiation 5' consists of four staves. The first staff begins with a circled number '9' and a 'nuit chord' label. The second staff is labeled 'chordal theme'. The third and fourth staves are labeled 'chords 1 - 3 mirrored' and 'nuit chord'. The score includes various musical notations such as notes, rests, and dynamic markings like 'ff' and 'molto'.

Instantiations 6 and 7 are nearly identical, and along with the “nuit chord,” provide a structural bookend to Parenthese 4 (see Example 7.5, below). Perhaps the most noticeable change between the first five instantiations of the chordal theme and instantiations 6 and 7 is length—in other words, these two final instantiations could be viewed as rhythmically compressed versions of the chordal theme. For instance, the previous instantiations were comprised of varying note durations that ranged from the sixteenth-note to the dotted-eighth. With instantiations 6 and 7 the rhythmic profile is comprised solely of sixteenth-notes. Additionally, where previous instantiations repeated fragments of the underlying chord progression (each fragment always comprised of more than one chord), creating an interrupted linearity or even a “retrograde linearity” by mirroring the preceding fragment, instantiations 6 and 7 repeat chord three only once, the remaining chords sounding only a single time. The result is a completed iteration of the underlying chord progression occurring within the duration of two quarter-notes, whereas previously, a completed

iteration of the underlying chordal theme took five and one-half measures to complete (see instantiation 4, above).

Finally, there are two additional changes between all previous instantiations and instantiations 6 and 7 that are worth noting. The first change involves the “nuit chord”—or rather, a lack of the “nuit chord”—in that for the first time the final two instantiations of the chordal theme are not preceded by the pivot chord. Instead, instantiations 6 and 7 precede the “nuit chord,” with the pivot chord in *Ainsi la nuit* providing, like the pivot chord from *Sur un même accord* (see Figure 7.3 above), a point of departure for the music that will follow. The second change has to do with linear order. With the first five instantiations of the chordal theme from *Ainsi la nuit*, the order of chords in the progression proceeded in some sort of linear fashion. It may have been an interrupted linearity, proceeding slowly through the progression in fragmentary fits and starts like in instantiation 4, or it may have been the reversed, palindromic linearity of instantiations 1, 3 and 5. Either way, *within* each fragment, chord order was never rearranged—it either proceeded in ascending or descending order. With instantiations 6 and 7 linear order is rearranged for the first time, Dutilleux initially omitting chord 1 and instead presenting chords 2 through 6, followed by a repetition/interjection of chord 3, finally followed by chord 1 and the “nuit chord,” chord 1 having now been moved to the end of the chordal theme. Had instantiations 6 and 7 proceeded in the same manner as their predecessors, the order of chords would not have been 2-3-4-5-6-3-1, but more likely 2-3-4-5-6-5-4-3-2 or 1-2-3-4-5-6-5-4-3-2-1.

Ex. 7.5 Dutilleux: *Ainsi la nuit* (Parenthese 4, Reh. A, and Constellations, Reh. 1).

instantiation 6
chordal theme compressed
chords 1 - 6
order rearranged "nuit chord"

PARENTHÈSE 4
A *Animé* (♩ = 88/92)

point of departure: transformation of the "nuit chord"

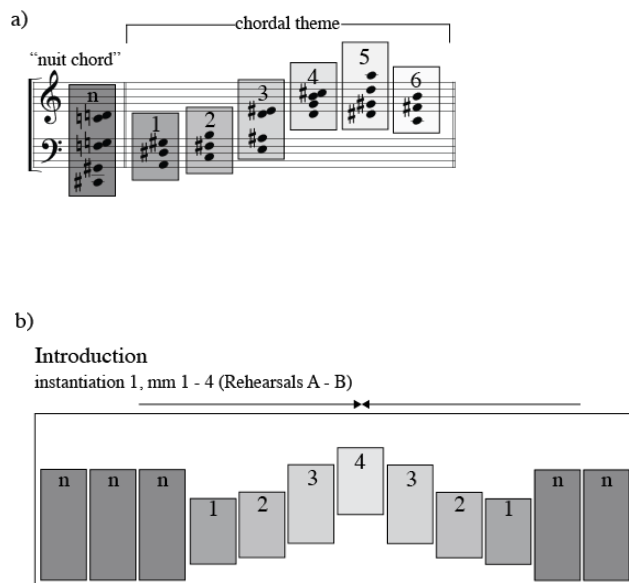
instantiation 7
chordal theme compressed
chords 1 - 6
order rearranged "nuit chord" point of departure

V. CONSTELLATIONS
à la (L'union 184) 1 *Vif, souple et libre*

Below, Figure 7.6 provides a visual representation of each instantiation, placing them side-by-side. With this figure we can see that, in addition to the implied “background” linearity of the underlying chord progression that exists behind each instantiation, a further background linearity is implied by the overall composite of instantiations in that, as we progress across the string quartet from instantiation 1 to instantiation 7, Dutilleux *tends*

to present a more complete version of the chordal theme. However, this tendency, like Dutilleux's tendency to lean toward the "black note" end of the "nuit chord" genotype as he nears the end of *Ainsi la nuit*, or his tendency toward presenting "denser" views of the pivot chords in the middle of *Sur un même accord*, lacks a clear sense of directionality.¹⁸ For example, instantiation 5, which because of its location in the order of instantiations would be expected to present a nearly complete version of the chordal theme, is instead comprised of only the first three chords of the progression—it is moving in the "wrong" direction. So, we find that not only is each instantiation of the chordal theme a rearrangement of linear time, but that the implied linearity of the overall composite of instantiations—one that moves toward a more complete presentation of the chordal theme—is rearranged as well.

Fig. 7.6 Visual representation of the different arrangements or "views" of the *Ainsi la nuit* chordal theme.



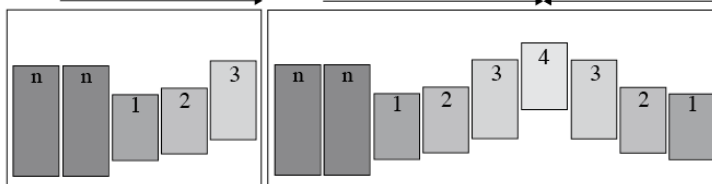
¹⁸ See pages 164-165, above.

(Fig. 7.6 continued)

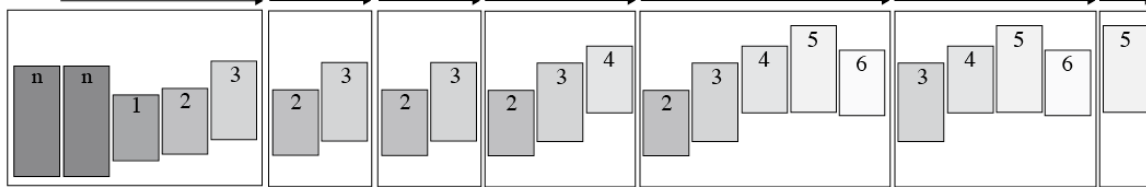
III. Litanies

instantiation 2, mm 1 - 2

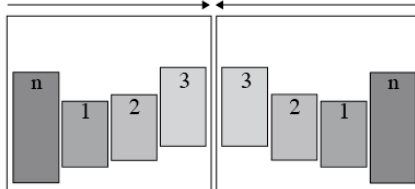
instantiation 3, mm 3 - 7 (Rehearsal 1)



instantiation 4, mm 8 - 13 (Rehearsal 2)



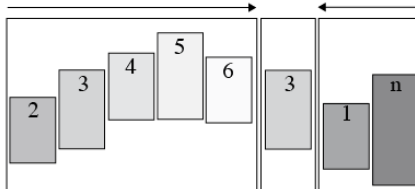
instantiation 5, mm 50 - 53 (Rehearsal 9)



Parenthese 4 into V. Constellations

instantiations 6 and 7, Parenthese 4:

m 1 and m 11 into Constellations: m 1



It is important to note that Dutilleux's presentation of the chordal theme in *Ainsi la nuit* is what places it in a gray area. If we refer back to his presentation of the chordal theme in *Métaboles* for instance, we see three presentations of a chordal theme that are nearly identical—no fragmentation, rearrangement or interruption of the fundamental theme takes place.^{19,20} Because the chordal theme from *Métaboles* is presented in this

¹⁹ By interruption, I mean the chordal theme in *Métaboles* is always allowed to proceed from start to finish.

²⁰ See Figure 6.4, Chapter 6, pages 144-146.

fashion, it can be considered a non-linearity within the context of the entire work—a recurring and static section or “moment” that always appears in the “same basic guise.”²¹ Were Dutilleux to present the seven instantiations of the chordal theme from *Ainsi la nuit* as he presented the three instantiations of the *Métaboles* chordal theme—that is, as a series of six chords that always progress in the same order—we could similarly consider the *Ainsi la nuit* chordal theme a recurring and static section or “moment,” a sound event that could be considered a referential device in the purest sense. However, because of the way in which Dutilleux *does* present the *Ainsi la nuit* chordal theme—specifically, by fragmenting, retrograding and rearranging the chordal theme internally, while simultaneously interrupting and rearranging it with other separate musical narratives—he creates a narrative that in its original form implied linearity, but which now unfolds in a temporally disjunct manner.



With the chordal theme from *Ainsi la nuit*, we see Dutilleux playing more with chronology than with multiple perspectives. In fact, with this sound event, we can find several connections to Proust’s treatment of narrative sequence. First, in the chordal theme, we see a direct connection to Proust in Dutilleux’s willingness to rearrange a linear sequence of events. Put differently, the chordal theme in *Ainsi la nuit* could be considered a small-scale sound event—a short narrative that follows a prescribed sequence, which

²¹ To clarify, initially the chordal theme would be perceived as progressing linearly as the chord progression associated with the theme unfolds. However, with each identical re-iteration, the measures that encompass the chordal theme in *Métaboles* become a non-linear sound event, a static object akin to one of Proust’s “snapshots.”

exists “outside” of the actual telling of the work. Dutilleux, like Proust, prefers to rearrange the order of units that comprise the event—in this case, the six chords that comprise the chordal theme—as it is told “inside” the narrative.

The rearranging of chronology takes us to a second connection to Proust, namely that each instantiation of the chordal theme—each rearrangement of the linear sequence—could be viewed as providing the listener with a different view of the sound event. And so, on a larger scale where each instantiation of the chordal theme is considered a single unit, we see a connection back to Proust’s concept of multiplicity. Dutilleux’s preference toward rearranging the linear sequence of the chordal theme may then result from his to desire to generate a greater degree of temporal volume by creating multiple “subjective” perspectives, which revolve around an “objective,” or original, perspective of a linear sequence that the listener is actually never presented with.

Finally, the example of the chordal theme connects to the idea that Proust’s narrative—or rather, formal—language recreates more the subjective, non-linear interiority of the mind than the objective, linearity of the outside world. For example, we all expand, subjectively and within the confines of our minds, short but important events that occur in our lives. We “replay” them, we view them from different angles, and often our memory of the event, *and its sequence*, becomes jumbled. As just mentioned, both Dutilleux and Proust recognized and exploited this idiosyncratic aspect of the human mind by rearranging linear events within their respective narratives. Additionally, they both recognized the mental expansion of a short event that occurs as we replay events in our minds. Remember that Proust would often realize this aspect of the human mind by devoting hundreds of pages to a single event that occurs over a series of hours while only

devoting a few lines to far larger periods of time.²² With the chordal theme from *Ainsi la nuit*, we see Dutilleux achieving a similar expansion. Essentially, by rearranging, retrograding and fragmenting chord order, and by slowly proceeding toward a complete iteration of the underlying chordal theme as it progresses through the string quartet with each instantiation, Dutilleux took what should be a short six-chord progression, a progression that might ordinarily occupy one or two measures, and expanded it across the entire work. In effect, he recreated in music the kind of interior mental expansion of a short external event that results from a volume of memories and reordered chronology, and that Proust recreated with his prose.

Contradictory states

Just as the preceding discussion focused to some degree on time—on the way Dutilleux recreated a subjective and internal experience of time by rearranging and “temporally expanding” the chordal theme from *Ainsi la nuit*—this section also focuses on time. Specifically, this section focuses on two gray areas: Dutilleux’s idiosyncratic use of **palindromes** and the sections he refers to as **Parentheses**. This section will also look at the ways these gray areas can express several temporalities simultaneously as well as combine past, present and future into a single event.²³ With these gray areas, we aren’t looking at objects that express varying levels of stasis or dynamism, or objects that move linearly or non-linearly—in other words, at individual *objects* that move across, or exist at a

²² See Chapter 2, pages 17-18.

²³ The term “temporality” is used here to refer to different species of time, different ways time can be presented, for example, directed linear time, linear time, multiply directed time, non-linear time and vertical time are all different species or time—in other words, different temporalities.

specific point in a spectrum—rather, we are looking at *events* that exist at several different points in the spectrum—at events (to return to the description at the beginning of the chapter) that conceptually reside in different “places” at the same time.

Palindromes

The term “stasis” is in part defined as “a state of inactivity or equilibrium.”²⁴ And while musical palindromes can be highly internally dynamic—that is, the music that resides within “the outer edges” of the palindrome can be very active—and also interact in a dynamic way with music that may precede or follow the palindrome, when taken as an isolated whole, one can view the palindrome as a formally static structure. Put differently, because whatever occupies one side of the palindrome is perfectly reflected on the other side by its exact opposite, the two sides create a perfect formal balance, which in turn cancels out the dynamic linearity of the narrative arc that is created by either side. We could therefore also view palindromes as being narratively static. As a way of clarifying, we could look use the visual metaphor of a balance scale (the type that the figure of Justice is often depicted holding in her hands). With this type of scale, when both sides hold an equal amount of weight it does not move—it is perfectly balanced and is therefore completely static. However, add or remove even a small amount of weight to one side, and the scales begin to tip. Linear movement in a direction begins, change across time becomes perceivable, and dynamism is quickly increased.

Along with the formal balance that musical palindromes create, they also create temporal balance. All musical palindromes contain an axis—a point at which the material begins to physically reflect whatever was contained in the preceding half. In music, we

²⁴ *Oxford Dictionaries*, s.v. “stasis,” accessed March, 17, 2019, <https://en.oxforddictionaries.com/definition/stasis>.

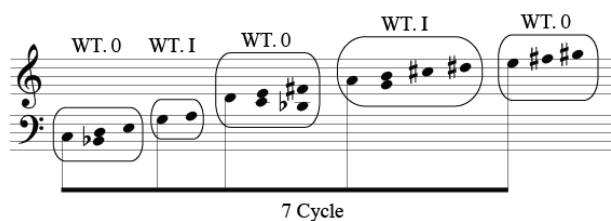
could conceptually also view that physical axis point as a temporal axis point, which metaphorically “pulls” linear musical material “forward” through time towards itself, and then “spits it out,” reversing the musical material and its associated linearity, pushing the music “backward” through time, into the past and back to its point of origin. As a result, we could view musical palindromes as projecting two expressions of time—on one side of the temporal axis is a present projecting forward into the future, on the other side is the exact opposite, a present reflecting backward into the past—in other words, with palindromes, movement directed into the future and movement directed into the past is physically combined and represented in a single structure, which is experienced in the present.

Dutilleux’s palindromes

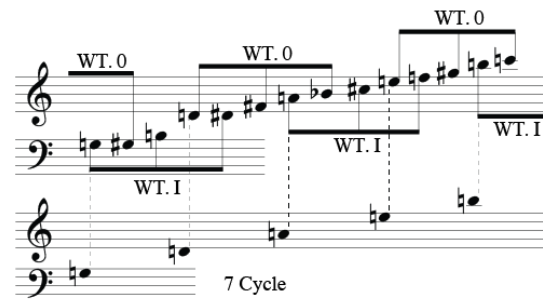
Dutilleux’s use of palindromes is not unique—Bach, Debussy, Bartok, Webern, Berg and Messiaen (to name a few) are all known to have made use of this structure. However, Dutilleux’s idiosyncratic use of palindromes is interesting in that he tends to intentionally avoid the perfection and balance associated with palindromes by creating imperfections in the palindromic structures. Indeed, this seems to be a consistent aspect of his musical language.

Fig. 7.7 a) Genotype from the Nocturne, *Ainsi la nuit*, b) genotype from *Sur un même accord*.

a) Whole-tone subsets hanging from a 7 Cycle scaffolding.



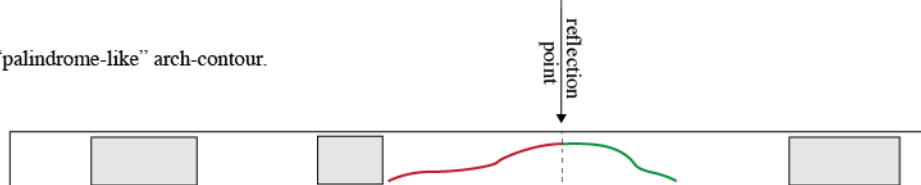
b) Overlapping, augmented triads hanging from a 7 Cycle scaffolding (creates 1+3+3 Cycle).



We have already seen several examples of that idiosyncrasy earlier in this Chapter and in Chapter 4. For example, in Figures 4.3a-c and 4.4a-b (reproduced above as Figures 7.7a-b) we saw how Dutilleux reduced the perfection and balance of the whole-tone scale, itself a palindrome, by “hanging” subsets of that scale from a 7 Cycle scaffolding, thereby transposing those subsets out of their respective whole-tone scale and into the complementary whole-tone scale.

Ex. 7.6 Dutilleux: *Ainsi la nuit* (Introduction, Reh. A-B).

Fig. 7.8 Melodic contour one: “palindrome-like” arch-contour.



Above, Example 7.6 and Figure 7.8 provide a second example by returning to the first instantiation of the chordal theme from *Ainsi la nuit* and reproducing an earlier example from Chapter 4.²⁵ As noted in that chapter, Dutilleux mitigates the perfection of the mirror that provides the structure for these opening measures by restricting that mirror to the parameter of pitch. All other parameters—timbre, rhythm, and dynamic gesture—change in the second half of the palindrome, creating the previously described

²⁵ See Example 4.9 and Figure 4.16, page 72.

“lopsided” reflection. And of course, as mentioned in Chapter 5, the entirety of *Ainsi la nuit* creates two asymmetrical arch forms—one physical, one conceptual—which overlap, creating an additional asymmetry in the overall structure of the string quartet.

In addition to the creation of imperfect palindromes, Dutilleux occasionally created perfect palindromes as well, noting in an interview with Roger Nichols that “[t]here are a lot of them in my scores, as there are in those of classical composers. Sometimes the palindrome is a perfect one, sometimes not. In my quartet, *Ainsi la nuit*, in the movement called *Miroir d’espace*, it’s perfect, not only from the point of view of pitch but for durations too. But elsewhere in the work the palindromes are deliberately not perfect.”²⁶ Of course, by creating an imperfect palindrome—one which is structural (as in the combination of whole-tone subsets and 7 Cycle scaffolding), or one which is lopsided—Dutilleux increases the perceived linearity and reduces the balanced nature of the palindromic structure, which is probably the point. Nevertheless, even with the “perfect” palindromes, he still reduces balance, just in different ways.

Miroir d’espace

The piece Dutilleux referred to in the quote above—the *Miroir d’espace*—is an excellent place to view the different ways in which Dutilleux diminishes the perfection of a seemingly-perfect palindromic structure. First, however, we will look at how the *Miroir d’espace* is seemingly perfect.

Below, Figure 7.9a presents the perfect mirror that is created by the music of the first violin and cello. This palindrome, for reasons that will become clear shortly, will be referred to from this point as the “large palindrome.” As Dutilleux noted, the large

²⁶ Dutilleux and Nichols, “Progressive Growth,” 90.

palindrome is perfect in both pitch and duration. Additionally, it does not only reflect around a vertical axis, but around a horizontal axis as well, the cello part reflecting the first violin's music, and vice versa (Figure 7.9b). It is worth noting that there are two horizontal reflection points—that is, the horizontal axis shifts between Bb4 and D5—nevertheless, the different reflection points are mirrored in the second half of the palindrome, and so perfection is maintained.

Figure. 7.9 The “large palindrome” that is created by the first violin and cello in the Miroir d’espace.

a) Miroir d’espace, large palindrome

Figure 7.9a displays a musical score for Violin I (Vln. I) and Cello (Vc.) parts, illustrating a large palindrome. The score is divided into two systems. The first system shows the Violin I part in treble clef and the Cello part in bass clef, both marked with a piano (*pp*) dynamic. The second system continues the same parts. The music is written in a key with one sharp (F#) and features a variety of time signatures including 6/4, 5/4, and 4/4. The melody in the Violin I part is mirrored in the Cello part, creating a horizontal reflection.

b) Miroir d’espace, large palindrome, vertical and horizontal axes

Figure 7.9b shows a musical score for Violin I (Vln. I) and Cello (Vc.) parts, illustrating a large palindrome with vertical and horizontal reflection axes. The score is divided into two systems. The first system shows the Violin I part in treble clef and the Cello part in bass clef. The second system continues the same parts. The music is written in a key with one sharp (F#) and features a variety of time signatures including 6/4, 5/4, and 4/4. The melody in the Violin I part is mirrored in the Cello part, creating a horizontal reflection. A vertical reflection point is indicated by a vertical line with arrows pointing up and down, and a horizontal reflection point is indicated by a horizontal line with arrows pointing left and right.

However, in order to show the Miroir’s perfection a good deal of music was left out: the music at the beginning and center of the large palindrome, as well as the

accompanimental music of the second violin and viola. Below, Figure 7.10 restores the music prior to the beginning of the large palindrome—an additional “small palindrome.” The first half of the small palindrome is a reflection of the first four notes of the large palindrome (or vice versa), and so these two palindromes could be described as overlapping. However, the first half of the small palindrome is not reflected at the end of the second half of the large palindrome. Instead, Dutilleux extends the final pitch of the large palindrome (C#7) across the final two measures of the movement. Elements of the small palindrome are then repeated in the following movement, for example, the descending minor 7th between C#7 and D#6, which initially appears at the center of the small palindrome, reemerges in the opening measures of Parenthese 2. Nevertheless, the reappearance of small palindrome “elements” following an extension of the end of the large palindrome is of course very far from an exact reflection.

Fig. 7.10 The overlapping “small” and “large palindromes” in the *Miroir d’espace*.

a) *Miroir d’espace*, small and large palindromes

The figure displays two staves of music from *Miroir d'espace*. The top staff is for Violin I and the bottom for Cello. The music is written in 2/4 time, with a key signature of one sharp (F#). The tempo is marked *pp* (pianissimo). The score is divided into two sections: a "small palindrome" and a "large palindrome". The "small palindrome" is indicated by a bracket above the first four measures of the Violin I staff. The "large palindrome" is indicated by a bracket above the first eight measures of the Violin I staff. The Cello staff also shows corresponding notes for both palindromes. The Violin I staff has a *8va* marking above the first measure, and the Cello staff has a *pp* marking below the first measure. The bottom staff shows the continuation of the music, with a *8va* marking above the first measure and a *Vln. I* marking above the first measure.

(Fig. 7.10 continued)

The musical score for Vln. I and Vc. illustrates a large palindrome structure. The first system shows the initial melodic lines in 3/4 and 6/4 time signatures. The second system, labeled "(large palindrome)", shows the continuation of these lines, with a bracket indicating the "extension of the large palindrome's final pitch". The Vln. I part features a melodic line with a final pitch extension, while the Vc. part provides a harmonic accompaniment. The score includes dynamic markings *p* and *pp*, and a trill in the Vc. part.

b) Miroir d'espace, small and large palindromes, vertical and horizontal axes

The musical score for Vln. I and Vc. illustrates the concept of "Miroir d'espace" (space mirror) through vertical and horizontal reflection points. The score is divided into two sections: "small palindrome" and "large palindrome". The Vln. I part features a melodic line with a final pitch extension, while the Vc. part provides a harmonic accompaniment. The score includes dynamic markings *p* and *pp*, and a trill in the Vc. part. The vertical reflection points are indicated by arrows pointing to the Vln. I and Vc. staves, and the horizontal reflection points are indicated by arrows pointing to the Vln. I and Vc. staves.

Dutilleux further reduces the perfection and balance of the *Miroir d'espace* in two additional ways. First, he adds a short, one-measure introduction to the beginning of the movement, which is comprised of four objects: Arpeggio Object C, Ascending Chromatic Object A, Tremolo Object A' and Grace Note/Tremolo Object A (see Figure 7.11a, below).²⁷ Like the small palindrome that precedes the large palindrome, the four objects of the *Miroir d'espace's* introduction do not reappear at the end of the movement. Instead, three of the four objects—the Grace Note/Tremolo Object, the Ascending Chromatic Object and the Tremolo Object—reappear in the middle of the movement, between the two halves of the large palindrome. In other words, they interrupt the logical conclusion of the first half of large palindrome rather than create some form of balance at its end (see Figure 7.11b, below). Additionally, when they do reappear in the “interruption,” it is not in their original order. Instead, the Grace Note/Tremolo Object and Tremolo Object, which initially appeared together in the introduction and directly after the Ascending Chromatic Object (Figure 7.11a), are separated and placed on either side of the Ascending Chromatic Object (Figure 7.11b).²⁸

²⁷ Arpeggio Object C transfers and transforms the phenotypical parameters that characterized Arpeggio Object A, which initially appeared in the opening measure of the Nocturne (see Chapter 4, Figures 4.29 and 4.30). Ascending Chromatic Object A, initially played by the first and second violins and viola, is so named because phenotypically this object is comprised of six ascending 32nd-notes, a double-forte dynamic, and a *marcato* bowing, and because genotypically, it is comprised of a 1 Cycle. Tremolo Object A', played by the cello, transfers the coupled timbral parameters of an unmeasured tremolo and sul ponticello bowing from Tremolo Object A, which first appeared in the fifth measure of the Introduction (see Chapter 4, Figure 4.13). Grace Note/Tremolo Object A is a phenotypical combination of the Grace Note Object (see Chapter 4, Figure 4.29) and the Tremolo Object (see Chapter 4, Figure 4.13), and genotypically is a subset of a 1+1+3 Cycle.

²⁸ One might view this “interruption” as a “phenotypical palindrome,” but as will be shown shortly, the beginning of the “interruption”—the specific permutation of the Grace Note/Tremolo Object that occurs in the “interruption”—is really an extension of the accompanimental music that is played by the second violin and viola. This creates a formal gray area, where one could also argue that the “interruption” really starts with the return of the Ascending Chromatic Object.

Fig. 7.11 The introduction and “interruption” in the Miroir d’espace.

a) Miroir d’espace, introduction objects

This musical score segment shows the introduction of four musical objects across four staves. The first staff features 'Ascending Chromatic Object A' (circled in green) and 'Grace Note/Tremolo Object A' (circled in blue). The second staff continues these objects. The third staff features 'Arpeggio Object C' (circled in red) and 'Tremolo Object A'' (circled in blue). The fourth staff continues the objects. Dynamics include *ff marcato*, *pp*, *mf*, and *pp*. Performance instructions include 'un poco vibr.' and 'Calme'. A circled '1' marks the 'beginning of the small palindrome'.

b) Miroir d’espace, “interruption”

This musical score segment shows the 'interruption' section across four staves. The first staff features 'Grace Note/Tremolo Object B' (circled in blue). The second staff features 'Ascending Chromatic Object A'' (circled in green) and 'Tremolo Object A'' (circled in blue). The third staff continues these objects. The fourth staff continues the objects. Dynamics include *mf*, *f*, *mp*, *ff*, *pp*, and *pp sub.*. Performance instructions include 'Violent', 'Calme', 'un poco sostenuto', 'perdendosi', and 'un poco sostenuto'. A circled '3' marks the 'beginning of second half of large palindrome'.

Finally, there is the aforementioned accompanimental music that is played by the second violin and viola. Moving completely independent of the two palindromes, the accompaniment is comprised of several objects—primarily permutations of the Grace Note/Tremolo Object, the Jeté Object and the Arpeggio Object—and is an excellent example of medium-scale compound-rotation, the sequence of objects unfolding in a seemingly random fashion (see Figure 7.12, below). This stream of unordered object-level permutations is continuous and could be viewed as emerging out of, or branching off from the introduction, being submerged back into the texture of the interruption, and then

reemerging, again as accompaniment, in the second half of the palindrome. Most importantly, the sequence of objects is *not* reversed in the second half. Instead, the random ordering of objects continues, unencumbered by the palindromes. Nevertheless, some of the objects—for instance, the Arpeggio Objects and a descending scale played by the second violin—do reflect their predecessors in the second half of the palindrome, but their placement in the overall order of objects is not a reflection—in other words, they are placed out of order.

introduction

beginning of the small palindrome

Ascending Chromatic Object A

Grace Note/Tremolo Object A

Grace Note/Tremolo Object A

beginning of the large palindrome

Grace Note/Tremolo Object A

Jeté Object G

Grace Note/Tremolo Object A

Jeté Object E''

end of the large palindrome (first half)

Jeté Object G

Arpeggio Object C'

Grace Note/Tremolo Object A'

descending scale

(Fig. 7.12 continued)

The musical score is divided into three systems, each with two staves. The first system is labeled 'interruption' and 'beginning of the large palindrome reflection'. It contains 'Grace Note/Tremolo Object B', 'Ascending Chromatic Object A', 'Trem. Object A'', and 'Grace Note/Tremolo Object A'''. The second system is labeled 'end of the large palindrome reflection' and contains 'Grace Note/Tremolo Object A'', 'Gliss Object', and 'Arpeggio Object C''. The third system contains 'Grace Note/Tremolo Object A'' and 'Jeté Object G''. Various dynamic markings (pp, p, mf, f, ff) and performance instructions (ord., marcato, impetato, perdonarsi, (Rant), (ad lib. non rapido)) are present throughout the score.

We thus see three different ways Dutilleux reduces the perfection of his “perfect” palindrome: by adding a small palindrome to the beginning of the large palindrome that is not (as one would expect) reflected at the end of the large palindrome; by adding an introduction that also does not reappear at the end of the large palindrome, but rather reappears between its two constituent halves; and by including an accompaniment that is itself asymmetrical and separate from the music of both the small and large palindromes.

Three streams of music, three projections of time

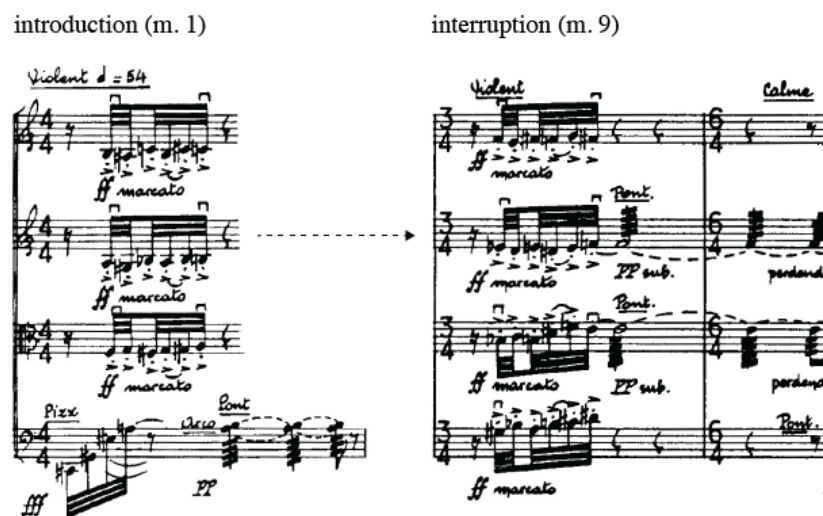
The preceding imperfections, intentionally introduced into the perfect structure of the Miroir d’espace, greatly decrease the balanced quality of this event as a whole, creating

asymmetries that allow for the perception of change across time—thus tipping the balance toward linearity. These imperfections are also responsible for some of the most interesting temporal aspects of the *Miroir d'espace*. Specifically, Dutilleux's inclusion of music that creates imperfections in an otherwise perfect palindromic structure results in separate streams of music characterized by unique degrees of linearity, and which are, accordingly, characterized by unique types of temporality.

The first stream we will discuss involves the music of the small and large palindromes. Both palindromes are initially linear structures in that they move with a clear direction up to the axis. Once at the axis point, the streams conceptually “reverse” direction, pushing time and the perception of change “backward” into the past, creating a “reverse” linearity that balances out the other side, and creating the aforementioned balance associated with palindromes. And so, the first stream of music initially projects linearity for a short period of time, reverses direction with the small palindrome and then repeats the process once more with the large palindrome.

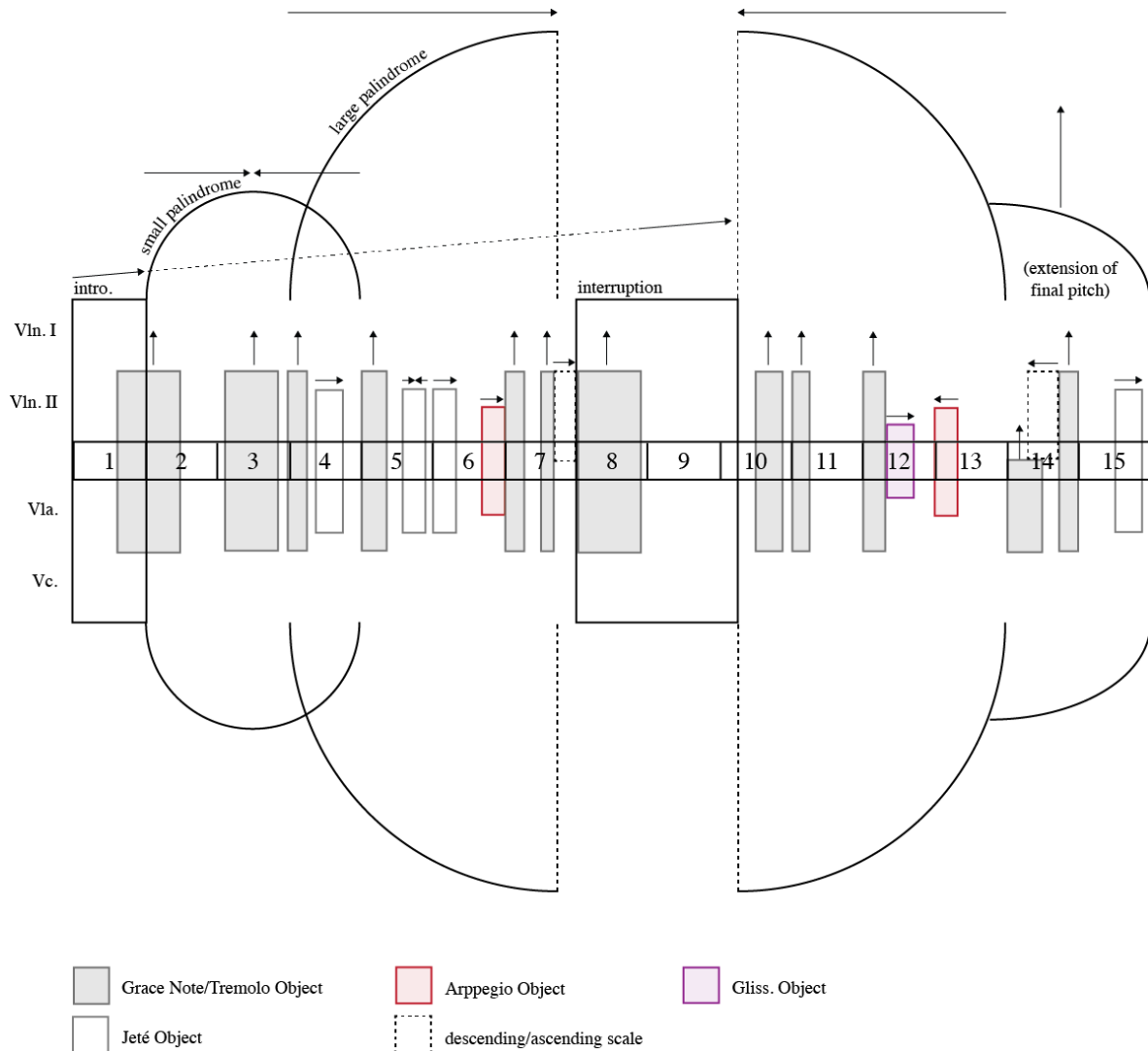
The second stream is comprised of the music of the introduction and the interruption. Individually, both of these short events project linearity in that there is always the presence of upward motion—and consequently clear directionality—within the overall course of each event. Perhaps what is most interesting about the *Miroir d'espace*'s introduction and interruption is that, when taken together, they create a continuous stream of music. Specifically, the versions of the Ascending Chromatic Object and the Tremolo Object that appear in the interruption are the logical continuation of their previous instantiations in the introduction—that is, the objects in the interruption continue the introduction's chromatic ascent and sustained final pitches (see Figure 7.13, below). As a

result, we could view the two instantiations of the Ascending Chromatic Object and the Tremolo Object as one linear stream of music that is interrupted by the logical and natural course of the large palindrome. The large palindrome in turn is also interrupted by the logical and natural course of the Ascending Chromatic and Tremolo objects. Put differently, we have with these two musical streams, which interrupt one another, a short example of multiply-directed time.



time, while the Arpeggio Objects and the second violin's descending scale figure lean more toward linear time and the Jeté objects sit somewhere between linearity and verticality.

Fig. 7.14 Formal diagram representing the different species of time in the Miroir d'espace.



Above, the various projections of time are diagrammed in Figure 7.14. The arrows pointing right designate linearity and the standard conception of time moving forward. The arrows pointing left represent the “reverse” linearity of the second half of the small and large palindromes. The arrows pointing up represent vertical time, while the dotted lines

represent the connection between the two interrupted streams of music and therefore represent multiply-directed time.



With the *Miroir d'espace*, Dutilleux has not only greatly reduced the perfection of the large palindrome, but also created a complex temporal event, an event that expresses multiple species of time simultaneously. The placement of linear and non-linear streams of music within the same event, either adjacent to one another or simultaneous creates within that event contradictory states: moments of linearity and non-linearity, movement “forward” and “backward,” a clear sense of direction and no direction at all. And, while this next statement is highly subjective, the music of this movement *feels* this way, it seems to project contradictory states—in other words, the music of the *Miroir d'espace* seems to move forward and go nowhere simultaneously.

Dutilleux is not merely placing separate perspectives side by side in the *Miroir d'espace* or expanding the importance and duration of a single event (as he does with the chordal theme from *Ainsi la nuit*), he is also placing unique expressions of time within the same event. Moreover, with the inclusion of palindromic structures Dutilleux effectively places past, present and future into the same event. Like Proust, with the *Miroir d'espace*, we see Dutilleux again striving to recreate the interior of the mind—a jumbled and fractured mess of past recollections and future anticipations, all experienced adjacently or simultaneously (and very much subjectively) in the present.

Parentheses

The Parentheses could be described as short movements that Dutilleux inserted, interlude-like (or parenthetically), between the larger movements in *Ainsi la nuit*. These short movements are the embodiment of the gray area, creating contradictory states in two ways: first, the Parentheses simultaneously exhibit characteristics of both referential devices and progressive growth; and secondly, and perhaps most interestingly, Dutilleux constructs the Parentheses by collecting past and future moments together and placing them side by side in a single event. In response to a question from Claude Glayman about the overall role memory played in his music, Dutilleux replied by describing the construction of the Parentheses:

I was alluding to prefigurations, variations, everything to do with this idea [of memory]. You can sense it very clearly in the sections called Parentheses. These parentheses are like reservoirs of what is about to happen or what has just happened, or even of what is going to happen much later in the work. I've often described them as 'beacons,' that's to say reference points which sink gradually into the listener's unconscious and later become crucial in their appreciation of the work.²⁹

In the above quote, Dutilleux returns to a concept of multiplicity and simultaneity, to the concept that past, present and future can exist within the space of a single event. Additionally, Dutilleux returns to the connective tissue that links those separate moments

²⁹ Dutilleux and Glayman, *Music – Mystery and Memory*, 77.

together—to the phenomenon of memory. In the Parentheses we see the twin phenomenon of time and memory merged into a unique formal structure.

Parenthese 2

To better understand the way Dutilleux builds the Parentheses, we will look at the construction of Parenthese 2, and at the mosaic of past and future moments that Dutilleux pieces together in that movement. Below, Figure 7.15 looks to past moments by presenting the first three lines of Parenthese 2. The music of the violins in line one and the first measure of line two is partly comprised of moments from the preceding movement, the *Miroir d'espace*. For instance, the continual return to C#7 in the first violin, as well as the second violin's pizzicato C#6, extends the C#7 that appears in final measures of the *Miroir d'espace* and immediately precedes Parenthese 2. Additionally, the previously mentioned C#7 to D#6 descending minor 7th, which is played by the first violin, and which appears in the opening measures of Parenthese 2, looks back to the same exact combination of interval, pitch and register that comprised the center of the *Miroir's* small palindrome and framed the edges of its large palindrome.³⁰ The second violin's pizzicato C#6 is also very much worth noting—it clearly refers directly back to not only the final gesture of the *Miroir*, but to all of the preceding *jeté* objects, indeed to the *jeté* parameter, which has now been combined with the pizzicato timbre into a harp-like *bisbigliando*.³¹ The *bisbigliando* parameter appears once more in Parenthese 2 just before Rehearsal C, now played by the first violin and the viola, and combined with a chord that is derived both phenotypically and genotypically from the “nuit chord.” Finally, the *Miroir's* Grace Note/Tremolo Object

³⁰ See Figures 7.10a-b on pages 184-185.

³¹ To review, the *jeté* parameter initially appeared in the *Nocturne*. It did not feature as an element in Parenthese 1, but returned (as noted above) in the *Miroir d'espace*.

Fig. 7.15 Past moments that are collected primarily from the Miroir d'espace and that appear as part of Parenthese 2.



Next, we will look at three future moments in Parenthese 2—that is, objects, small events, and even phenotypical parameters, which prefigure the music of the following movement, Litanies. The first prefiguration (Figure 7.16) comes in the form of touch fourth harmonics played by the viola and cello. These harmonics, which provide the accompaniment to the music of the violins in measures 71 through 78 of Litanies, initially features as accompaniment in the first three lines of Parenthese 2.

Fig. 7.16 Prefiguration one: artificial harmonics in Parenthese 2 that prefigure the music of Litanies.

The figure displays musical notation for two sections: **PARENTHÈSE 2** and **Litanies**. **PARENTHÈSE 2** is divided into three systems labeled A, B, and C. System A is titled "Libra et Placidie (2' 138)". Systems B and C are titled "Loca". The notation includes staves for Violins (V), Viola (V), and Cello/Double Bass (Cb). Specific parts are highlighted with green boxes and labeled with circled letters: (A) for the first system, (B) for the second, and (C) for the third. These highlighted sections show artificial harmonics played by the viola and cello. To the right, the **Litanies** section is shown, with measures 71-78 highlighted in green. A circled number 13 is also present. Arrows indicate the relationship between the highlighted sections in Parenthese 2 and the corresponding sections in Litanies, showing how the artificial harmonics in Parenthese 2 prefigure the music in Litanies.

The second prefiguration comes from objects, played by the violins and viola in line two of Parenthese 2, which combine several elements that appear separately in the following movement. One of these elements is mirror-writing, and specifically the mirror-writing of Litanies. Below, Figure 7.17 presents Parenthese 2, measures 9 through 11, and Litanies, measures 72 through 75, side by side. Octave displacements aside, notice that the pitches, and order of pitches, which comprise the palindrome in measures 72 through 75 of Litanies, are the same as the pitches that comprise the palindrome in Parenthese 2—Dutilleux has merely reversed the order of the two halves of the palindrome when it appears in Litanies.³² Additional elements from Litanies that combine in Parenthese 2 come from transferring two of the phenotypical parameters that comprise the music in measures 77 and 78 of Litanies. The first of these phenotypical parameters is melodic contour and helps explain the octave displacements in the palindrome in Parenthese 2, which occur as a result of trying to prefigure the contour of the descending lines that will appear in measures 77 and 78, while the second of the transferred phenotypical parameters is the tremolo bowing. Essentially, by combining the mirror-writing of the objects in measures 72 through 75 and the phenotypical parameters of the object in measures 77 and 78, Dutilleux is prefiguring elements of two objects, which span six measures in Litanies, in a single object that unfolds in the space of three measures in Parenthese 2.

³² Of course, this palindrome that appears in Parenthese 2 is prefigured by the palindromes of the Introduction, the Nocturne and the Miroir d'espace. And so, we see that not only does this palindrome prefigure events in Litanies, but also it connects back to events in the preceding movements.

Fig. 7.17 Prefiguration two: combination of phenotypical parameters and mirror-writing in Parenthese 2 that prefigures related objects in Litanies.

Parenthese 2, mm 9-11

Litanies, mm 72-75

Litanies, mm 76-78

transfer of phenotypical parameters

Figure 7.18 presents a third prefiguration—a short ascending and descending line that is paired with the Grace Note/Tremolo Object (minus the grace note), and which, when extended, moves wave-like across several measures. This object, which makes its first appearance in truncated form just before Rehearsal C (m. 12) of Parenthese 2, then in extended, wave-like form across measures 15, 16 and 17, reappears in Litanies in extended form at Rehearsals 5 through 6 and in truncated form at Rehearsal 7.

Fig. 7.18 Prefiguration three: Grace Note/Tremolo Object and “wave-like” object pairing that appears first in Parenthese 2 and later reemerges in Litanies.

Parenthese 2, mm 12-19

Musical score for Parenthese 2, mm 12-19. The score is written for multiple staves. The first system is marked with a circled 'C' and contains various dynamics like *p*, *pp*, *mf*, and *sf*. The second system includes markings for *cresc*, *molto*, and *sfp*. Green circles and lines highlight specific musical motifs, including grace notes and tremolos, which are identified as 'Prefiguration three'.

Litanies, mm 27-38

Musical score for Litanies, mm 27-38. The score is divided into two systems. The first system includes a circled '6' and the instruction *faire claquer les sordes*. The second system includes a circled '7'. Green circles and lines highlight musical motifs similar to those in Parenthese 2, showing the reemergence of 'Prefiguration three'.

Finally, there is a short four-note gesture in Parenthese 2 that is played by the first violin at Rehearsal C. This gesture, an instantiation of trichord (012), looks both to past and future events in *Ainsi la nuit*. Generally, this object moves beyond the trichord, often expanding chromatically downward or upward (as it does in Figures 7.19b, c and d below). As a result, it is useful to think of this object as an incipit—as an object that marks the beginning of a longer line of music or even the beginning of a movement. From this point, it will be referred to as the Chromatic Incipit Object. Also, because this is a discussion of past and future moments revolving around a central moment experienced in the present, the central instantiation of the Chromatic Incipit Object at Rehearsal C of Parenthese 2 will be referred to as the Chromatic Incipit Object A. Past instantiations will then be designated by moving backward through the alphabet (e.g.: Chromatic Incipit Objects Y, Z, etc.) while future instantiations will move forward through the alphabet (e.g.: Chromatic Incipit Objects B, C, etc.).

The idea of a short chromatic cell first appears in the Nocturne, as variants of Harmonic Object C (See Figure 7.19a, below).³³ It later reemerges, played by the first violin, in Parenthese 1, now transformed in a way in which the phenotypical parameters more closely resemble those of the object we hear in Parenthese 2 (Figure 7.19b), and in a way we can label as Chromatic Incipit Object Y.³⁴ The next occurrence of the Chromatic Incipit Object, played by Violin I, actually appears at the beginning of Parenthese 2 (paired with “Jeté” Object H, which is played by Violin II). Excepting transpositional level and register,

³³ See Chapter 4, Figures 4.29 and 4.31, pages 85 and 87.

³⁴ Here, we could consider the instantiation of the chromatic cell in Parenthese 2 a phenotypical branching off from Harmonic Object C. In other words, it has transformed enough phenotypically (primarily through a different rhythmic contour and a slower tempo) to warrant a new designation. Additionally, and perhaps most importantly, it begins a horizontal line—it acts as an incipit—an important phenotypical parameter that is not shared by the Harmonic Objects.

the first five notes and the majority of the phenotypical parameters that characterize Chromatic Incipit Object Z are the same as those that characterize Chromatic Incipit A (Figure 7.19c).³⁵

Fig. 7.19 “Past” instantiations of Chromatic Incipit Object A.

a) Harmonic Objects C and C'

Nocturne, m 14

b) Chromatic Incipit Object Y

Parenthese 1, mm 4-5

c) Chromatic Incipit Object Z

Parenthese 1, mm 1-2

d) Chromatic Incipit Object A

Parenthese 2, mm 13-15

Above, we can see that while Chromatic Incipit Object Y sheds the rhythmic contour associated with Harmonic Object C, it does maintain the characteristic artificial harmonic timbre of that object. Additionally, the more even rhythmic contour and slower tempo of Chromatic Incipit Object Y prefigures the more even rhythmic contours and tempo of Chromatic Incipit Objects Z and A. In a sense, we could view Chromatic Incipit Object Y as a transformative bridge between Harmonic Object C and Chromatic Incipit Objects Z and A.³⁶

³⁵ In fact, Chromatic Incipit Z could really be considered part of Chromatic Incipit A, Chromatic Incipit A being the logical continuation of Chromatic Incipit Z (following an interruption by the tremolando palindrome at Rehearsal B). However, as will be shown presently, Chromatic Incipit A provides the foundation for a series of separate, future transformations, and as a result, has been separated from its immediate predecessor.

³⁶ Also worth noting is the fact that, while Chromatic Incipit Object Y sounds (as a result of the touch fourth harmonic) and octave and a fifth higher than Chromatic Incipit Object A, one has to wonder if Dutilleux used the placement of the touch fourth harmonic—that is, the diamond shaped notehead—to “visually prefigure” the transpositional level of Chromatic Incipit Object A, as they are one and the same.

Chromatic Incipit Object A then clearly prefigures two additional future moments, which share the same transpositional level— T_8 —as Chromatic Object A. The first of these occurs in Parenthese 3 with Chromatic Incipit B, which opens the movement. The timbral character of Chromatic Incipit Object B results from the transfer and combination of several timbral parameters that characterized prior instantiations of the Chromatic Incipit Object. The first of these is itself a combination in that Dutilleux looks back to the simultaneous pizzicato and arco bowing that characterized the first note of Chromatic Incipit Z (see Figure 7.19c, above). He then combines those timbres with the artificial harmonic that characterized Chromatic Incipit Y (see Figure 7.19b, above). The second future moment that is prefigured by Chromatic Incipit Object A appears in the beginning of Litanies 2, with Chromatic Incipit Object C. While the horizontal line that partially defines Chromatic Incipit Object C is played an octave apart by the viola and cello in the opening measures of Litanies 2, it is also played *modo ordinario*, and so the timbre more closely resembles that of Chromatic Incipit Object A (see Figure 7.20c, below).

Fig. 7.20 “Future” instantiations of Chromatic Incipit Object A.

a) Chromatic Incipit Object A
Parenthese 2, mm 13-15

b) Chromatic Incipit Object B
Parenthese 3, m 1

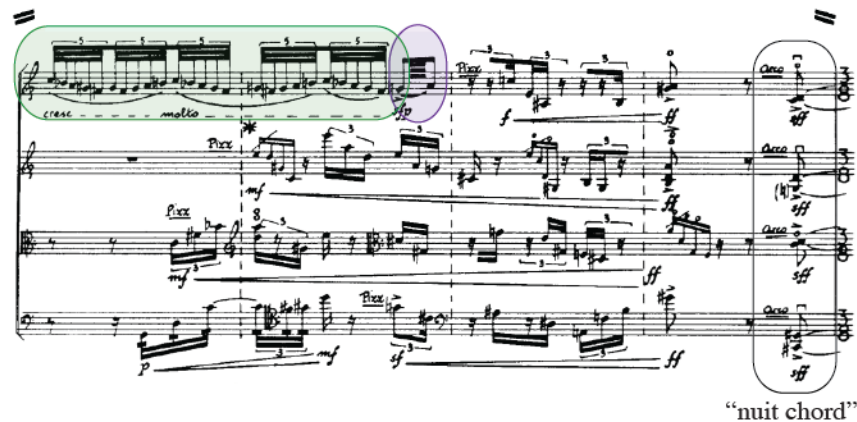
c) Chromatic Incipit Object C
Litanies 2, m 1

Below, Figure 7.21 shows Parenthese 2 in its entirety, and as a convergence of past and future moments: past moments from the *Miroir d'espace* are circled in purple; future

moments that occur in Litanies are circled in green; and the Chromatic Incipit Objects (Z and A), which represent the convergence of past and future moments in a single event, are circled in red. We can then see with this figure that the Parentheses can appropriately be considered a mosaic of separate moments in time, or as Dutilleux described it, a “reservoir” of the past and future.

[illegible]

(Fig. 7.21 continued)



Parentheses as an expression of referential devices

While Dutilleux did describe the Parentheses as “reference points,” these sections should not be confused with referential devices: they are in fact, quite different. Nevertheless, the use of the word “reference” does suggest commonalities.

The Parentheses and referential devices are both constructed with the aim of triggering an association either between the present moment and past events, or between the present moment and events that will occur in the future. This means that both structures rely on the repetition of pre-existing material. However, with referential devices, Dutilleux seeks to build an associative connection between multiple iterations of the *same* event or object, whereas Dutilleux creates, within the structure of a single Parenthese movement, associative connections between multiple iterations of *several different* events or objects.

Fig. 7.22 Instances of the C#7/D#6 dyad as a fixed register, embedded pitch structure.

The figure displays three musical excerpts from different works, each highlighting a specific instance of the C#7/D#6 dyad as a fixed register, embedded pitch structure. The excerpts are: 1. *Nocturne*, mm 17-18, marked with a circled 7; 2. *Parenthese 2*, mm 1-3, marked with a circled A; and 3. *Miroir d'espace*, m 4. Arrows indicate the relationship between these instances, showing how the dyad appears in different contexts across the works.

Where the exact and static repetition of an object or event that occurred earlier in the work, which results in an overt associative connection between instantiations of that object or event, is in general the hallmark of the referential device, in the Parentheses Dutilleux primarily turns to the one referential device that is marked by subtlety—the embedded pitch structure.³⁷ For instance, the descending C#7 to D#6 minor 7th that appears in the *Miroir d'espace* is an embedded pitch structure. In fact, this embedded pitch structure makes its appearance as early as the *Nocturne*. Part of what makes the embedded pitch structure so effective as an associative trigger is that it always remains in the exact same register. In the *Nocturne*, the C#7/D#6 dyad initially appears in different octaves, but

³⁷ See Chapter 6, pages 146 through 148.

by Rehearsal 7 it appears in the correct register (see Figure 7.22, above). And so, by the time it appears in Parenthese 2, the C#7/D#6 dyad, which seemed fleeting or inconsequential, now takes on an increased importance. Because it has been embedded in two of the preceding movements (the Nocturne and the Miroir d'espace), and repeated numerous times, the C#7/D#6 dyad should, to use Dutilleux's words, "sink gradually into the listener's unconscious and later [in Parenthese 2] become crucial in their appreciation of the work."³⁸

The Parenthese is not only a place for previously embedded pitch structures to become "realized" from a cognitive standpoint (as is the case with the C#7/D#6 dyad), it is also often the movement in which pitch structures (or objects) become embedded. We have already seen this with the Chromatic Incipit Objects A, B and C. Part of the reason the Chromatic Incipit Object that appears at Rehearsal C in Parenthese 2 was designated as Chromatic Incipit Object A—as the "central moment"—is because from that point on, the transpositional level of later instantiations becomes fixed at T₈. As such, Chromatic Incipit Object A becomes, retrospectively, an embedded pitch structure when it returns in Parenthese 3 and in Litanies 2 as Chromatic Incipit Objects B and C. Of course, when the Chromatic Incipit Object does reemerge in Parenthese 3 and in Litanies 2, it *does* transform registrally and timbrally, but this example in itself could be considered a gray area—an object that simultaneously exhibits the characteristics of the referential device known as the embedded pitch structure and the metamorphic characteristics of progressive growth.

³⁸ Dutilleux and Glayman, *Music – Mystery and Memory*, 77. Also, see page 194.

Parentheses as an expression of progressive growth

The Chromatic Incipit Object gray area takes us to our next discussion, which focuses on the processes of progressive growth in the Parentheses. As discussed above, objects or short events that appear in the Parentheses often take the form of the referential device known as the embedded pitch structure. However, just as if not more often, objects and short events that appear in the Parentheses are in the process of transforming through one or more of the processes of progressive growth.

We have seen several instances of this already. In particular, Figures 7.15, 7.17 both provide examples of the processes of parametric transference. Figure 7.15 shows Dutilleux transferring the *jeté* parameter to the pizzicato C#6, which accompanies the *modo ordinario* C#7 that begins Parenthese 2, while Figure 7.17 presents Dutilleux combining in Parenthese 2 the tremolo bowing and the melodic contour from the music of measures 77 and 78 in *Litanies* with the mirror writing that preceded those parameters in measures 72 through 75.³⁹

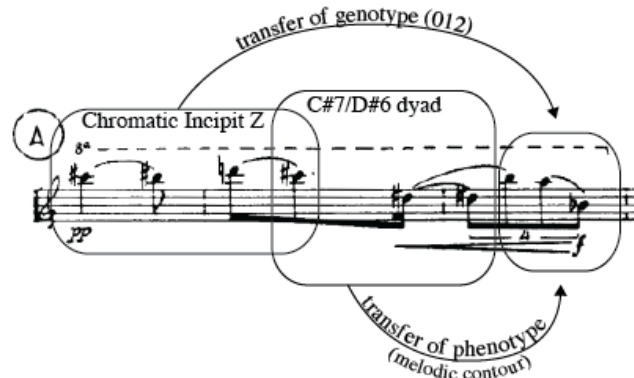
Additionally, Parenthese 2 provides examples of segmentation and recombination. The opening Violin I line in Parenthese 2, much like its predecessor in the *Miroir d'espace*, combines segments from other objects into a new and larger individual object—a melodic line.⁴⁰ The Chromatic Incipit Object, largely defined by the fact that it is itself a segment of a larger line, provides the first part of this line. The second segment, the previously discussed C#7/D#6 descending minor 7th, elides with the last note of Chromatic Incipit Object Z. The final segment of this line combines elements of the previous two. Specifically, as an

³⁹ See pages 196 and 199, above.

⁴⁰ Please see Chapter 4, pages 64-66, for a review of segmentation and recombination in the Violin I part of the *Miroir d'espace*.

instantiation of (012), it takes its genotypical material from the Chromatic Incipit Object, while the melodic contour of its final two pitches—a descending major 7th—is transferred from the preceding C#7/D#6 descending minor 7th (see below).

Fig. 7.23 Progressive growth in Parenthese 2: segmentation and recombination of the Chromatic Incipit Object and the C#7/D#6 dyad.



A further example of segmentation and recombination in Parenthese 2 comes from Figure 7.18 and the short “wave-like” object that is paired with Grace Note/Tremolo Object one measure before Rehearsal C.⁴¹ Here, as previously mentioned, the Grace Note/Tremolo Object, which was segmented from the grace note in the third measure of Parenthese 2, is now only comprised of a tremolo. When added to the wave-like, ascending/descending gesture that first appears in Parenthese 2 it becomes a new object, which then features in Litanies.

Contradictory States in *Parenthese 2*

As he did with the *Miroir d’espace*, in Parentheses 2 we find Dutilleux again creating contradictory states by placing static and dynamic objects or events—that is, embedded referential devices and objects undergoing the processes of progressive growth—within

⁴¹ See page 200, above.

the same narrative space. However, with Parenthese 2, and with the Parentheses in general, Dutilleux is not creating multiple and contradictory streams of music (as he did with the *Miroir d'espace*), rather, he is creating the aforementioned mosaic of static and dynamic objects by placing them side by side, or even on top of one another.⁴² Formally and conceptually, we could view the construction of a mosaic of adjacent past and future objects or events—or rather, past and future moments—as conforming most closely to moment time. The problem is that in the Parentheses, Dutilleux will often arrange the separate moments in such a way as to create a feeling of continuity and linearity. There is, for example, a natural directionality—from high to low—that unfolds across the first eleven measures of Parenthese 2 regardless of the fact that the music of these measures is assembled from a series of separate past and future moments. But, of course, this conflict between the actual formal type (non-linear moment time) and the feel of the music (directed linear time) points to the concepts of the gray area and of contradictory states. Finally, like the *Miroir d'espace*, with the Parentheses, Dutilleux is “writing” in all directions of time at once, although the manner with which he achieves this temporal “omni-directionality” in Parenthese 2 differs from that in the *Miroir d'espace*. In the *Miroir d'espace* for example, Dutilleux creates this effect with his palindromes, which conceptually move “forward” and then “backward” through linear time. This “forward” and “reverse” linearity, however, is all contained within the same structure—the palindrome—and does

⁴² For example, this is the case with the first seven measures of Parenthese 2. In those measures, Dutilleux creates the music of the first and second violins by combining objects from several past events (e.g.: Chromatic Incipit Z, the C#7/D#6 dyad, the C#6 pizzicato “jeté” and the segmented Grace Note/Tremolo Object). This music is then literally placed on top of the accompanimental music of the viola and cello, which prefigures a future event—the artificial harmonics that appear in *Litanies*.

not need to refer to anything else in order to connect past, present and future.⁴³ With Parenthese 2, and with the Parentheses more broadly, Dutilleux is (as previously discussed) not moving backward or forward through time, but rather creating associative connections between past and future moments by collecting those moments and placing them within a single structure that resides and is experienced in the present moment.

Most Proustian work, most Proustian section...

If the string quartet *Ainsi la nuit* has been described as Dutilleux's most Proustian work, then I think it is appropriate to describe the Parentheses as his most Proustian formal section. In fact, while Dutilleux often referred to Proust as influencing his formal language in general, the Parenthese was the one structure that Dutilleux specifically connected to Proust's narrative language, saying in an interview with Roger Nichols:

[My compositional tendencies] may perhaps show the influence of literature, of Proust and his notions about memory. It's a difficult thing to explain, but it's important because it's central to my preoccupations from [*Symphony No. 1*] onwards—in my String Quartet, for example, where the 'Parentheses' act as reservoirs of sound events in which you find either commentaries on what has gone before or prefigurations of what is still to come.⁴⁴

⁴³ That being said, the palindrome in the *Miroir d'espace* (as noted above on page 198) is foreshadowed in both the Introduction and the Nocturne. And so, even here we see Dutilleux priming a multi-temporal structure, or, put differently, applying a larger multi-temporal technique—based on associative concepts—to a smaller multi-temporal structure.

⁴⁴ Dutilleux and Nichols, "Progressive Growth," 89. See also Chapter 1, pages 9-10.

In the above quote, Dutilleux clearly connects Proust's "notions about memory" to the Parentheses, and so, appropriately, we can find in the Parentheses many connections to the previously discussed techniques that both Proust and Dutilleux used to subtly trigger associative processes in the mind of the listener or reader as they traverse the course of a work. Of those processes, two stand out in relation to the Parentheses: the first, which has just been discussed, is the embedded pitch structure; the second is priming.⁴⁵ Here, we see a crossover point between referential devices and progressive growth in that the embedded pitch structures will often provide a point of departure and begin transforming, thereby becoming one of Dutilleux's "small cells, which develop bit by bit." However, whether the embedded pitch structure remains an immobile and static object, or whether it begins to transform at some point through the processes of progressive growth, both result, through their subtle placement within the texture of the work, in the priming of later events. The Parentheses often turn out to be a nexus of this process, indeed this seems to be the point of the Parentheses; they are the formal structures whereby previously primed events or objects become realized and begin to move into conscious awareness, or the formal structures where elements of future events are initially embedded, foreshadowing those events and priming the listeners mind for the moment when those objects or events move from the periphery of the mind and into full view.

Furthermore, in order to connect those elements across time, in order to connect the separate moments, both Proust and Dutilleux relied on parametric similarity—Proust through the use of metaphor, Dutilleux with the process of parametric transference. In the Parentheses we see the process of parametric transference being applied to numerous

⁴⁵ To review embedded pitch structures, please see Chapter 6, pages 146-148. For priming, please see Chapter 5, pages 126 through 129.

objects, and at a higher rate, to connect those objects to moments in both the past and future. The “higher rate” of parametric transference results from the sheer volume of moments that are often placed adjacent to one another, sometimes creating associations, through parametric similarity, between temporally discrete moments—that is, past and future moments—simultaneously. And so, in the Parentheses, as the natural result of placing past and future moments side-by-side, we also see temporal proximity and the processes of structural transformation (reordering, segmentation and recombination), being used at a higher rate than at other points in the string quartet. As a result, we find that the Parentheses connect clearly not only to Proust’s notions about memory through parametric transference, but also to Proust’s manipulation of time and narrative sequence through structural transformation.

Dutilleux’s use of the term “reservoir,” in two separate interviews no less, is telling. One definition of a reservoir is of a place or structure that collects something, usually fluid. Of course, we often metaphorically discuss “the flow of time” as though time were actually fluid. It then seems entirely appropriate that Dutilleux would also use this term metaphorically with regard to the Parentheses because these structures do in fact collect something—that is, they collect past and future events into a single present moment.

Conceptually, there is parallel narrative structure in Proust’s *À la recherche du temps perdu*—namely, the *moments bienheureux*. The *moments bienheureux*, if you will recall, were memories of a past moment that were cued involuntarily into the Narrator’s conscious awareness by parametric similarities that existed between the present moment and the past moment. This involuntary memory of a past moment was then felt so vividly as to seem to the Narrator as though he was experiencing the past moment and the present

moment simultaneously. Moreover, the *moments bienheureux* that appear early on in the *Recherche* projected into the future. Initially appearing as a series of separate and “merely psychologically heightened events,” the *moments bienheureux* foreshadowed the final and most crucial of those pleasurable moments: the episode of the uneven paving-stone.⁴⁶ This episode in turn resulted in the Narrator linking, collecting and reflecting ‘backward’ upon all of the involuntary memories as a whole, and drawing through those associations, “his personal conclusions about time, lost as life ebbs, and regained in the intellectual crystallization of memory.”⁴⁷

We find the concept of temporally separate events being physically experienced simultaneously in a single moment or event as connecting the *moments bienheureux* and the Parentheses, and as an element in the narrative/formal languages of both Proust and Dutilleux. Earlier, in Chapter 2, I had described Proust’s *moments bienheureux* as “creating deformations or distortions in narrative space-time that attract and assemble past, present and future onto ‘a uniform plane.’”⁴⁸ I would argue that Dutilleux’s Parentheses—his reservoirs of time—also attract and assemble past, present and future onto a uniform plane, creating conceptually-similar distortions in the formal space-time of *Ainsi la nuit*. We could then view Dutilleux’s Parentheses as similar musical manifestations of Proust’s *moments bienheureux*.



⁴⁶ Tukey, 401.

⁴⁷ Ibid., 401.

⁴⁸ See Chapter 2, page 25.

Over the course of this chapter, we have discussed the ways Dutilleux's structural and static objects change by moving across a spectrum from stasis to dynamism. We have seen, for instance, the phenotypes of individual and static horizontal objects, such as structural notes, change linearly through time, and phenotypes of static vertical objects, like structural chords, change spatially and non-linearly, by presenting the listener with multiple perspectives of that object's phenotype and underlying genotype. Additionally, we have seen how Dutilleux presents different views of a fixed register chordal theme by slowly revealing, at different points in the work, portions of that theme while simultaneously rearranging the implied order of that theme's chordal progression. In this approach, which results in the interrupted and disordered presentation of what would otherwise be (if not for that specific presentation) a short linear narrative, we find a connection to multiply-directed time, a temporal form that resides between linearity and non-linearity. Finally, with his specific approach to palindromes and with the Parentheses, we have seen Dutilleux create sound events that are comprised of contradictory expressions of time—the Miroir d'espace, by presenting multiple streams of music that individually express a different and contradictory temporality (such as a linear stream of music and a non-linear stream of music unfolding simultaneously), and Parenthese 2 by combining, as part of its mosaic of past and future moments, static and dynamic objects into a single sound event that, although an example of non-linear moment form construction, presents to the listener as linear.

What becomes clear, after having delved into these, the more common of Dutilleux's formal gray areas, is that the *intersection* of progressive growth and referential devices is as

important as either one of those techniques on their own. Progressive growth and referential devices serve distinctly different roles in Dutilleux's music. To frame it narratively, referential devices provide the static backdrop for those dynamic characters, which continuously transform through the processes of progressive growth. It is then, important to understand those roles as distinct and different, to understand how they function and to understand their place in Dutilleux's musical language. However, it is equally important to understand that the characteristics that separate Dutilleux's dynamic objects from his static objects often become blurred, or, they begin to overlap. Put more succinctly (and metaphorically) in a large portion of Dutilleux's music, black and white begin to turn gray, and those gray areas in turn are responsible for a large portion of his formal language.

In Dutilleux's gray areas we also find some of the strongest connections to Proust's narrative language. We see in Proust's belief that the painter must see "many churches in order to paint one church" a connection to Dutilleux's treatment of static structures, which seems to imply that in order to truly understand the nature of the structure in question, the listener needs to be presented with many alternate views of that structure.⁴⁹ We find in Dutilleux's treatment of the chordal theme from *Ainsi la nuit* the previously mentioned connection to Proust's subjective expansion of a single short event into one that encompasses an inordinately longer portion of narrative space, as well as a connection to Proust's treatment of linear time as a series of "delimited units" that can be rearranged.⁵⁰ Perhaps the clearest connections between the gray areas and Proust's narrative style come

⁴⁹ See Chapter 2, page 20.

⁵⁰ See Chapter 2, page 17.

from those events that have been described as contradictory—the palindromes and the Parentheses. Indeed, these events exhibit some of the clearest manifestations of Proust's influence in all of Dutilleux's music. The Parentheses in particular reflect Proust's concept that time, as well as memory, can be experienced as multiple. In fact, in all of Dutilleux's gray areas we see strong connections to Proust's concepts of multiplicity and simultaneity, and to the desire to recreate the subjective feel of the interior mind—a place where objective events and characters can present differently while remaining the same, and a place where moments in time can be experienced simultaneously while still remaining separate.

Conclusion

Framing an understanding of Dutilleux's musical language in terms of Proust's narrative language not only sheds light on Dutilleux's compositional process and on the specific techniques involved in that process, but also on his compositional objectives—to use Dutilleux's words, “his preoccupations.”¹ It becomes clear that, like Proust, exploring the interconnected phenomena of time and memory, as well as the intersection of those phenomena, is indeed central to Dutilleux's aesthetic preoccupations.

With regard to Dutilleux's “own objectives in organizing musical time,” we find the influence of Proust's non-chronologic “manner of construction” manifests in the specific techniques that comprise the processes of progressive growth.² These processes in turn manifest a formal language that is, like Proust's narrative language, primarily non-chronologic. For example, Dutilleux's idiosyncratic small-scale processes of structural transformation result in the continuous rearranging of individual musical elements. These processes when applied recursively across all levels result in various non-chronologic medium- and large-scale formal types like moment time and multiply-directed time, which are reflective of the type of temporally-disjunct narrative sequencing that Proust has become associated with.

We also find in progressive growth processes that build the type of dense associative networks that are found in *À la recherche du temps perdu*. These associative networks result from Dutilleux's specific approach to the musical object, which separates

¹ Dutilleux and Nichols, “Progressive Growth,” 89. See also, Chapter 1, pages 9-10.

² Dutilleux and Glayman, *Music – Mystery and Memory*, 53. See also, Chapter 1, page 11.

pitch structures (genotype) from non-pitch parameters (phenotype). With his processes of structural transformation (which produce Dutilleux's disordered formal sequences), Dutilleux, like Proust, creates new associative connections through the cognitive grouping process of proximity. Perhaps more importantly, Dutilleux's processes of parametric transference and transformation, which connect separate objects by transferring and/or transforming non-pitch parameters between those objects, makes use of the cognitive grouping process of similarity. Here, we find one of the clearest connections to Proust's expansive use of metaphor in *À la recherche du temps perdu*—namely, that both metaphor and the processes of parametric transference and transformation connect characters, objects or events retrospectively through the cognitive grouping process of similarity.

However, there is one all-encompassing concept that connects Dutilleux's formal language to Proust's narrative language, that runs through both *Ainsi la nuit* and *À la recherche du temps perdu*, and that binds the formal/narrative techniques that affect both time and memory: the concept of multiplicity. In Dutilleux's music, this takes shape most clearly in the process of compound-rotation, which results in the creation of multiple "views" of a musical object. And, just as there is no definitive version of a character in *À la recherche du temps perdu*, we cannot point to a definitive version of a musical object in Dutilleux's music. We cannot say, for example, which version of the Jeté Object in *Ainsi la nuit* is the "correct" version. Rather, by comparing all versions we gain an insight into the underlying nature of the object that is lost when each version is viewed individually. In effect, the presentation of multiple and contradictory versions of the same object allows the listener to build a four-dimensional "composite image" of that object, a composite that is comprised of multiple perspectives and multiple moments in time.

In Dutilleux's music, as in Proust's writing, the concept of multiplicity is then applied not only to his objects, but also in all directions and across all levels. We see the concept applied to his ever-expanding and discursive phrases, which build one upon the other to create a composite gesture. We see Dutilleux creating multiple versions of a sound event or section—for example, the different instantiations of the antiphonal dialog. The concept of multiplicity is even applied to the phenomenon of time. This temporal application of the concept of multiplicity is perhaps best exemplified by the *Miroir d'espace*, which places multiple species of time within the same event, and by the *Parentheses*, which create, within a short movement, a composite of past, present and future moments. It is multiplicity that connects Dutilleux's dynamic process of progressive growth to Proust's concepts of involuntary memory, and the lack of multiplicity that connects Dutilleux's static referential devices to Proust's concept of voluntary memory.

Finally, we find a clear connection to Proust's concept of multiplicity in Dutilleux's use of the term "progressive growth." Proust's view of the self as a composite, comprised of multitudes, was based, like Dutilleux's technique, on a concept of growth, and on the notion that "[a]s we grow older, so our self expands—grows "taller" in the Narrator's image—to encompass all of the sequential selves accumulating within it."³ We could also look back to the "stilts" metaphor featured in Chapter 1, which described aging men as though they "spend their lives perched upon living stilts which never cease to grow until sometimes they become taller than church steeples."⁴ While the stilts do represent the wobbly frailty that is associated with old age, more importantly, the metaphor addresses the concept of

³ Landy, 119.

⁴ Proust, *In Search of Lost Time—Time Regained*, 531. See also, Chapter 2, pages 22-23.

accumulation, of a mental composite of selves and experiences that *grows progressively* over time as one ages. And so, we find Proust's influence, and his concept of multiplicity, extends not only to Dutilleux's techniques, but also to the underlying concept that binds together all of the techniques and processes that reside under the heading of "progressive growth."

Ainsi la nuit is perhaps one of Dutilleux's most enduring works, and has been performed and recorded by nearly every major contemporary string quartet.⁵ My belief is that the interest this string quartet has generated is connected to the concept of multiplicity, because, although the concept of multiplicity is a consistent feature of Dutilleux's entire compositional output, *Ainsi la nuit* may be the single work that manifests that concept most clearly. Indeed, this may be one of the main reasons that the string quartet is considered his most "Proustian" work.

With multiple expressions of the self, or with multiple expressions of a musical object—with multiplicity in general—comes contradiction. Likewise, we find in *Ainsi la nuit* that an overriding feeling of contradiction accompanies this work. For example, the string quartet feels both well-formed and formless. One can hear, even on a superficial level, that the complex form of this work has been very carefully thought out and executed with the greatest care. Nevertheless, its complex formal design—its continuous multi-level permutations and rearrangements—also contributes to a feeling of formlessness, to the impression that the listener is both moving forward in a single direction and in multiple directions simultaneously. Another of the string quartet's contradictions stems from the

⁵ Here is a partial list of string quartets that have performed and recorded Dutilleux's *Ainsi la nuit*: the Arditti, Ludwig, Belcea, Orpheus, Juilliard (which premiered the work), and Arcanto String Quartets, and Quatours Hermès, Rosamonde, Psophos, and Varèse, and The Alma Quartet Amsterdam.

fact that the numerous objects, events and sections undergoing a process of progressive growth in *Ainsi la nuit* are in a state of constant metamorphosis, creating the dense network of associations through proximity and association that was mentioned above. At the same time, because these objects, events and sections never remain “still” long enough to become clearly recognizable, they remain in a perpetually primed state, rarely moving out of the periphery and into the focus of the conscious mind. Consequently, as one moves through a performance of the string quartet, the various of objects, events and sections that appear in *Ainsi la nuit* present this contradiction to the listener: they perpetually feel familiar and unfamiliar at the same time, simultaneously old and new.

Finally, we see, in Proust’s application of the concept of multiplicity to the narrative elements of time and memory, a desire to capture or recreate, in prose, the subjective non-linear world of the mind—to recreate not an exterior experience, but an interior one. Dutilleux, with his string quartet *Ainsi la nuit*, approached this interiority through the metaphor of the night. It is in the night when our conscious awareness tends to focus inward, and in the night that our minds become a fractured plurality of past experiences and memories and future hopes and anticipations. It is in the night that past, present and future merge and linear time breaks down. *Thus, the night...* It is then, in these, some of the darkest and most nebulous corners of the mind, that we find many of the clearest conceptual manifestations of Proust’s influence over Dutilleux.

Volume II

300,000 Starlings Swarm Over Denmark

by

David Gerhard Utzinger

2019

Instrumentation

Flute in C

Clarinet in Bb

Violin

Viola

Cello

Percussion (crotales and marimba)

Piano

300,000 Starlings Swarm Over Denmark

murmuration I

calm, floating... ♩ = 60 - 66

Flute

Clarinet in B $\flat$

Violin

Viola

Cello

Percussion

Piano

Ebow *)

o ————— *pp* **)

***) —————

*) Ebow: set two ebows on the G3/A3 strings. Set the Ebow to its harmonic setting, so the sounding pitch is one octave higher.

**) The hairpin will occur naturally once the sustain pedal is depressed.

***) The pedal markings are merely suggestions. (note: dotted pedal markings = sempre pedal, or pedal liberally and at will)

7 **A**

Fl.

pppp ————— *poco a poco* *pp* *poco a poco* o *ppp* ————— *p*

Vln.

sul tasto o ————— *poco a poco*

Vla.

poco a poco o ————— *poco a poco*

Vc.

sul tasto o ————— *poco a poco*

Pno.

14

Fl.

Vln.

Vla.

Vc.

Pno.

ppp *mp* *mf* *p*

pp *poco a poco* *pppp* *p*

pp *poco a poco* *pppp* *p*

pp *poco a poco* *pppp* *p*

B

poco meno mosso, almost motionless...

19

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

mp *pp* *poco a poco* *mp* *poco a poco* *ppp*

ppp

poco a poco *(modo ord.)* *pp*

poco a poco *(modo ord.)* *pp*

poco a poco *(modo ord.)* *pp*

*crotales *** *pp* *mp*

remove Ebows *una corda* *pp* *mp*

*) Ossia: substitute piccolo for the flute harmonics

**) Throughout the piece, these "chorale" sections reappear. Each time, the crotales and piano should be equally balanced, as though the crotales are merely an extension of the piano's upper register.

C **murmuration II**
a tempo (tempo I)

28

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

sul tasto

sul tasto

pp

poco a poco

pp

poco a poco

pp

fade away

pppp

place Ebows back on G3/A3 strings

(o ————— pp)

D

36

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

sul tasto *)

poco a poco modo ord. *)

poco a poco modo ord. *)

arco

poco a poco

pp

modo ord.

modo ord.

modo ord.

p

p

p

*) The arrow denotes a slow transition of bow placement.
For example: a shift (over a course of beats or measures)
from sul tasto to sul ponticello.

J swirling!

sub. *mf* *molto* *sfz*

subito tranquillo...

K poco meno mosso, almost motionless...

mp *pp*

sub. mf *molto* *sfz* *mf* *molto* *sfz*

poco a poco p *mf* *molto* *sfz* *p* fade away *pp*

p *mf* *molto* *sfz* *p* fade away *pp*

p *mf* *molto* *sfz* *p* fade away *pp*

pp

sub. mf *molto* *sfz* *mf* *molto* *sfz*

(do not remove Ebows)

remove Ebows

(o *pp*) una corda

L murmuration IV
in motion, oscillating tempo II: ♩ = 120 - 132 (♩ = ♩)

poco a poco rit. subito tempo primo

pp *molto* *ff* *p* *) *poco p*

pp *molto* *ff* *p*

pp *molto* *ff*

pp *molto* *ff*

pp *molto* *ff*

move to marimba (four yarn mallets)

mp fade away *ppp* *ff*

mp fade away *ppp* *ff*

tre corde

*) With this gesture, the amount that the crescendi (hairpins) effect the dynamic level should be minimal (i.e.: each crescendo moves up only one "notch"), the dynamic should then always return to its original level with the next note.

91

Fl. (sempre poco) poco *p* *) poco a poco

B♭ Cl. (sempre poco) poco *p* *) poco a poco

Vln.

Vla. modo ord. o poco a poco

Vc. modo ord. o poco a poco

Perc. *p* poco a poco

Pno. *pp* emerge out of the flute and clarinet *p* poco a poco

*) Once the gesture begins to increase in length, and in its number of repetitions, the crescendi (hairpins) will then increase proportionally.

98

Fl. *mf* molto *f* *p* *p* *p* *p* *p*

B♭ Cl. *mf* molto *f* *p* *p* *p* *p* *p* *mf*

Vln. modo ord. *pp* poco *mp* molto *f* o poco a poco

Vla. *mp* molto *f* o poco a poco *p*

Vc. *mp* molto *f* o poco a poco *p*

Perc. *mf* molto *f* *p*

Pno. *mf* molto *f* *pp* poco a poco

N scattering!

105

Fl. *mf* *ff* *mf* *mf* *mf*

B♭ Cl. *ff* *mf* *mf* *mf*

Vln. *p* *molto* *ff* *f*

Vla. *(p)* *molto* *ff* *f*

Vc. *(p)* *molto* *ff* *f*

Perc. *(p)* *molto* *ff*

Pno. *p* *molto* *ff*

light bow, but on the string (like a saw)

light bow, but on the string (like a saw)

light bow, but on the string (like a saw)



O in motion, oscillating...

111

Fl. *ff* *mp* *mp* *poco a poco* *f*

B♭ Cl. *ff* *mp* *mp* *poco* *mf*

Vln. *ff* *poco a poco*

Vla. *ff* *poco a poco*

Vc. *ff* *poco a poco* *mp*

Perc. *pp* *poco a poco*

Pno. *ff* *pp* *poco a poco*

P poco più mosso (♩ = 126 - 138)

[illegible]

expanding little by little

147

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

p

p

p

p

p

p

pp

poco a poco

mp

pp

poco a poco

mp

U

156

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

f

p

f

p

p

p

f

mf

mp

p

p

mp

f

p

V

poco accel.----- poco più mosso (♩ = 126 - 138)

164

Fl.

ff mf ff mp f p mf pp mf p

B. Cl.

ff mf ff mp f p mf pp mf p

Vln.

pp f pp pp pp pp pp pp

Vla.

pp f pp pp pp pp pp pp

Vc.

pp f pp pp pp pp pp pp

Perc.

mf ff f mf mp p

Pno.

mf ff mf ff mp f p mf pp p

W

swarming, spinning!!! (♩ = 63 - 69)

169

Fl.

mp poco a poco fff mf ff mf

B. Cl.

mp poco a poco fff mf ff mf

Vln.

poco a poco sul pont. sul pont. modo ord. on the string fff mf molto fff p f p

Vla.

poco a poco sul pont. sul pont. modo ord. on the string fff mf molto fff p f p

Vc.

poco a poco sul pont. sul pont. modo ord. on the string fff mf molto fff p f p

Perc.

mp mf f fff

Pno.

poco a poco fff mf ff mf

murmuration VI

subito meno mosso e tranquillo

tempo III: ♩ = 80 - 84 (♩ = ♩)

X

174

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

ff mf *fff f* *fff f* *fff f*

mf pp *pp* *f* *pp* *f* *pp* *f* *p* *ff* *f*

mf pp *pp* *f* *pp* *f* *pp* *f* *p* *ff* *p* *ff* *p* *ff* *f*

mf pp *pp* *f* *pp* *f* *pp* *f* *p* *ff* *p* *ff* *f*

ff *mf* *ff* *fff f* *fff f* *fff f*

fff *fff* *fff* *fff*

(sul pont.)

always play these 5 notes:

prestissimo possibile
punta d'arco
tremolo
ad libitum (in any order)

move to crotales

178

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

mp *mp*

pppp *pppp* *pppp*

always play these 5 notes:

prestissimo possibile
punta d'arco
tremolo
ad libitum (in any order)

mp *mp*

Z suddenly shifting! più mosso
♩ = 126 - 138 (♩ = ♩)

184

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Perc.

Pno.

move to marimba

ff *f* *mf* *mp*

p *ff* *p* *f* *pp* *mf* *ppp*

p *ff* *p* *f* *pp* *mf* *ppp*

p *ff* *p* *f* *pp* *mf* *ppp*

ff *f* *mf* *mp*

ff *f* *mf* *mp*

AA subito tranquillo
tempo III (♩ = ♩)

188

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Perc.

Pno.

move to crotales

p *pp* *mp*

p *pp* *pp*

mp *p* *pppp*

mp *p* *pppp*

mp *p* *pppp*

p *pp* *mp*

mp

p *pp* *mp*

BB

poco più mosso (♩. = 88 - 92)

CC

subito tranquillo (tempo III)

192

Fl.

p *f* *p* *mp*

B♭ Cl.

p *f* *p* *mp*

Vln.

(7) *mf* as before *pppp*

Vla.

(7) *mf* as before *pppp*

Vc.

(7) *mf* as before *pppp*

Perc.

pp *f* *pp* move to crotales

Pno.

p *f* *p* *mp*

DD

poco a poco accel. (♩ = ♩)

EE

murmuration VII
panicked!
più mosso
♩ = 138 - 144
(♩ = ♩)

196

Fl.

(♩ = ♩) *p* poco a poco *f* molto *fff*

B♭ Cl.

pp poco a poco *f* molto *fff*

Vln.

sul pont. *f* modo ord. molto *fff* *mf*

Vla.

sul pont. *f* modo ord. molto *ff*

Vc.

sul pont. *f* modo ord. molto *ff*

Perc.

pp *f* molto *ff*

Perc.

move to marimba

Pno.

pp *f* molto *fff*

FF

201

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Pno.

mp *ff* *mf* *fff*

p *ff* *mf* *fff*

mf *f* *mf* *ff* *f* *fff* *mf*

mf *f* *mf* *ff* *f* *fff*

mf *f* *fff*

p *fff*

GG

210

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

mp *f* *mf* *molto* *fff*

mp *f* *mf* *molto* *fff*

f *mf* *f* *molto* *fff* *f*

mf *f* *mf* *f* *molto* *fff* *f*

mf *f* *mf* *f* *molto* *fff*

mf *f* *mf* *f* *molto* *fff*

fff

p *mp* *molto* *fff*

murmuration VIII
meno mosso, fading from view....a sense of peace returns...
(♩ = 116 - 126)

5 seconds

226

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

f

p

f

p

una corda ----- (sempre ped.)

237

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Perc.

Pno.

mp

fade away

fade away

sul tasto

pp

sul tasto

pp

sul tasto

pp

percussionist:
place an elbow on the A-flat 3 string
(harmonic setting still on)

ebow

pp

fade away

dusk I (civil twilight)

tempo I, ma poco meno mosso,
calm, floating... ♩ = 58 - 63 (♩ = ♪)

JJ

poco a poco rit...beginning to disappear...

247

Fl.

B♭ Cl.

Vln.

Vla.

Vc.

Pno.

ppp

sempre l.v.

257

Vln.

Vla.

Vc.

Perc.

Pno.

flaut. (poco vibrato)

pp

pp

pp

mp

mp

mp

percussionist: remove elbow

(keep the pedal down, allow the string to continue to ring even after the elbow has been removed)

KK

Fl. *ppp*

B♭ Cl. *ppp*

Vln. (modo ord.) *ppp*

Vla. (modo ord.) *ppp*

Vc. (modo ord.) *ppp*

Perc. *pp* crotales

Pno. *pp*



274

Fl.

B♭ Cl.

dusk II (nautical twilight)

LL

Vln.

Vla.

Vc.

Perc. percussionist: place an elbow on the E4 string (harmonic setting off)

Pno. *fade away* *pppp* *pp* (sempre ped.)

flaut. (sempre senza vibrato) *ppp*

flaut. (sempre senza vibrato) *ppp*

percussionist: place an elbow on the D4 string (harmonic setting off)

MM

dusk III (astronomical twilight)

rit. ----- meno mosso (♩ = 56 - 60)

0

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