

Music Theory Society of New York State

Annual Meeting

Baruch College, CUNY
New York, NY

9–10 April 2005

PROGRAM

Saturday, 9 April

- 8:30–9:00 am Registration — Fifth floor, near Room 5150
- 9:00–10:30 am [The Legacy of John Clough: A Panel Discussion](#)
- 9:00–10:30 am [Text-Music Relations in Wolf](#)
- 10:30–12:00 pm [The Legacy of John Clough: New Research Directions. Part I](#)
- 10:30am–12:00 pm [Scriabin](#)
- 12:00–1:45 pm Lunch
- 1:45–3:15 pm [Set Theory](#)
- 1:45–3:15 pm [The Legacy of John Clough: New Research Directions. Part II](#)
- 3:20–4:50 pm [Revisiting Established Harmonic and Formal Models](#)
- 3:20–4:50 pm [Harmony and Sound Play](#)
- 4:55 pm Business Meeting & Reception

Sunday, 10 April

- 8:30–9:00 am Registration
- 9:00–12:00 pm [Rhythm and Meter in Brahms](#)
- 9:00–12:00 pm [Music After 1950](#)
- 12:00–1:30 pm Lunch
- 1:30–3:00 pm [Chromaticism](#)

Program Committee: Steven Laitz (Eastman School of Music), chair; Poundie Burstein (ex officio), Martha Hyde (University of Buffalo, SUNY) Eric McKee (Pennsylvania State University); Rebecca

Jemian (Ithaca College), and Alexandra Vojcic (Juilliard).

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Saturday, 9:00–10:30 am

The Legacy of John Clough: A Panel Discussion

Chair: Norman Carey (Eastman School of Music)

- Jack Douthett (University at Buffalo, SUNY)
- Nora Engebretsen (Bowling Green State University)
- Jonathan Kochavi (Swarthmore, PA)
- Norman Carey (Eastman School of Music)

John Clough was a pioneer in the field of scale theory. The direction of his work was suggested by certain remarks in articles by Milton Babbitt, but his theories are highly original, and reinvigorated the realm of speculative music theory. His papers were notable for their insight and clarity, and his numerous co-authored papers celebrate the values of the community of scholars. He and his co-authors uncovered a number of unexpected combinatorial results that accrue to the diatonic and other scale systems. His work on maximally even sets with co-author Jack Douthett (Clough and Douthett 1991) won the SMT Outstanding Publication Award in 1993 and is recognized as a landmark in the field of scale theory.

The panel, which includes a number of Clough's co-authors, will discuss the highlights of Clough's work. The panel will also discuss the significance of Clough's influence in other aspects of recent music theory, most notably in neo-Riemannian studies. The session is meant to serve as a primer on the ideas of one of the most original thinkers in recent music theory.

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Text-Music Relations in Wolf

Chair: Deborah Stein (New England Conservatory of Music)

- ["The Heaviest Weight": Circularity and Repetition in Hugo Wolf's "Mühevoll komm ich und beladen"](#)
Matthew BaileyShea (University of Rochester)
 - [Night Phantoms Begone! Pervasive Fluency in Wolf's "In der Frühe"](#)
Evan Jones (Florida State University)
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"The Heaviest Weight": Circularity and Repetition in Hugo Wolf's 'Mühevoll komm ich und beladen'"

The music of Hugo Wolf has continued to vex music analysts for many years. Among reasons for this is the complexity of his tonal expression; traditional tonal conventions often interact with complex chromatic processes, often necessitating an uncomfortable mix of contrasting theoretical and analytical tools. This paper analyzes a particularly intricate case: "Mühevoll komm ich und beladen" from the Spanisches Liederbuch. This song creates a complex path of tonal relationships that ultimately reinforces an obsessive sense of repetition and circularity—issues that are explicit in the song's text. The analysis models an approach in which the song is viewed from the perspective of various external, interpretive lenses, all of which relate to the song's principal theme: musical circularity as a representation of weight and spiritual burden. This broad, intertextual approach engages a number of diverse aspects of the song's structure, including its formal circularity, the role of hexatonic poles, issues of voice-leading, and the rather idiosyncratic use of directional tonality. Each of these issues is considered in the service of a larger, overriding goal: to expose the ways that Wolf characterizes sin and spiritual torment through techniques of repetition and musical circularity.

"Night Phantoms Begone! Pervasive Fluency in Wolf's 'In der Frühe'"

A central issue in the analysis of late nineteenth-century music has been whether Schenkerian theory can account for its chromatic character or whether it truly represents a "second practice," separate and apart from classical tonality. While Schenkerian theory can be shown to address much chromatic music, its diatonic bias prompts questions about its applicability to later tonal styles. A different approach is offered by neo-Riemannian theory, which formalizes the group-theoretic properties of various chordal transformations (involving minimal or "parsimonious" voice leading) in twelve-tone pitch-class space. But neo-Riemannian theory offers no meaningful hierarchical description of the music it models, and can account for only a small number of harmonic successions. As a third option, this paper introduces an analytical methodology that speaks to the intersection of diatonic and chromatic realms in nineteenth-century tonality. A detailed analysis of Hugo Wolf's 1888 song "In der Frühe," from Gedichte von Eduard Mörike, will illustrate this mode of analysis and will highlight several important issues of interpretation. In a characteristic synthesis of darkness and light, and evoking "night phantoms" at the song's midpoint, Wolf first cycles down by perfect fourths in minor keys, then up by successive minor thirds in major keys—recalling ascending third cycles with similar textual associations in his earlier song "Morgenstimmung" and in "Isolde's Transfiguration" from Wagner's *Tristan*. Although the unique tonal design of the song resists a traditional Schenkerian reading, a new approach to voice leading in chromatic harmony makes a hierarchical interpretation possible. Wolf's song is given such an interpretation, based on a paradigm of voice leading termed "pervasive fluency," which affords a leveled interpretation of tonal structure in chromatic music.

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The Legacy of John Clough: New Research Directions (Part I)

Chair: Norman Carey (Eastman School of Music)

- [Scope, Method, and Goal of Scale Theory, and Notes on 'Cardinality Equals Variety for Chords'](#)
David Clampitt (Yale University)
 - [Diatonic Transformation in the Music of John Adams](#)
Timothy Johnson (Ithaca College)
-

“Scope, Method, and Goal of Scale Theory, and Notes on 'Cardinality Equals Variety for Chords'”

In their 1985 *Journal of Music Theory* article, “Variety and Multiplicity in Diatonic Systems,” John Clough and Gerald Myerson explored the following property of the usual diatonic system: if melodic lines are sorted into categories according to the number of diatonic steps spanned between adjacent notes in the melody, then the number of varieties of such melodies is equal to the number of distinct diatonic pitch classes in the line. For instance, arpeggiated triads come in three varieties: major, minor, and diminished, while arpeggiated seventh chords and four-note scale segments each are found in four varieties: major, minor, dominant, and half-diminished; tone-tone-semitone, tone-semitone-tone, semitone-tone-tone, and tone-tone-tone, respectively. Clough and Myerson proved that this property, “cardinality equals variety for lines,” holds for a class of scales that they called “diatonic systems.” The property “cardinality equals variety for chords,” however, holds in some diatonic systems (including the usual diatonic), but not in others. Clough and Myerson made a conjecture about which chords (unordered subsets) would fail to exhibit cardinality equals variety. The principal concern of this paper is to determine precisely under what conditions cardinality equals variety for chords holds or fails.

The purposes of diatonic theory or scale theory have sometimes been misunderstood, especially for mathematical results such as those set forth in this paper. Accordingly, the paper is framed by a discussion of the “scope, method, and goal” of scale theory that provides a context for this work.

“Diatonic Transformations in the Music of John Adams”

In a significant number of John Adams's pieces, the number of tones held in common between adjacent diatonic areas, and also between the musical events occurring within these areas, indicates an important facet of the relationship between the corresponding musical passages. By varying or alternatively by preserving the number of common tones held between the sound events and their implicit or explicit diatonic contexts in adjacent passages, Adams transforms strongly established diatonic areas, along with their constituent musical elements, into new diatonic areas, creating an ebb and flow within his music based on the relative smoothness of the relationships. The presentation develops a formal model for describing common-tone relationships between chords (triads or seventh chords), sonorities (all sounding pitch classes), and fields (diatonic collections inferred by the musical context).

The diatonic transformations discussed in this paper will be shown to be related to similar transformations familiar from tonal music of the eighteenth and nineteenth centuries. However, the new formal approach taken to this topic, the repertoire used to illustrate these transformations, the characteristic shimmer of both Adams's orchestration and his sonority construction, and especially the distinctive harmonic and diatonic relationships that ensue from his style, all suggest that this paper will provide a fresh perspective on this topic. The presentation will be illustrated by examples drawn from four important pieces in Adams's early development and maturation as a composer, presented both in written form and aurally.

Scriabin

Chair: Pieter van den Toorn (University of California–Santa Barbara)

- [Scriabin, the Sphinx and The Riddle or Trichord 3-5](#)
Michael Chikinda (SUNY–Buffalo)
 - [Yuri Kholopov's Monofunctional Sphere](#)
Philip Ewell (University of Tennessee–Knoxville)
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“Scriabin, the Sphinx and The Riddle or Trichord 3-5”

It has been noted by such scholars as Alfred Swan and Faubion Bowers that Scriabin was highly influenced by Chopin, his predecessor and fellow piano virtuoso. Indeed, Vassil Safonov was to dub Scriabin "Russia's" Chopin. However, beyond general stylistic references, are there more systematic ways of exploring the influence of Scriabin's esteemed predecessor on his music? I will attempt to answer the influence with a thorough investigation of Scriabin's Prelude, opus 67, no. 2 and Chopin's Prelude, opus 28, no. 14. By applying both set-theoretic principles and transformational theory, I will demonstrate a tacit connection and sense of continuity between both preludes; in particular, I will demonstrate an affiliation in the harmonic content and the T and I relations between constituent pitch-classes, which are elegantly displayed in the graphic representations of Klumpenhouwer networks.

As a point of departure, I make reference to David Lewin's influential work "Klumpenhouwer Networks and Some Isographies that Involve Them" to introduce the concept of K-networks; then, I will apply the fourth of Lewin's "Five Rules for Isography of Klumpenhouwer Networks," to reveal isographic relations among prominent trichords and tetrachords of both preludes. I next develop a "parachute" network that demonstrates both positive and negative isographies that exists between sonorities containing disparate pitch-class sets and, finally, to develop a super network. The application of transformation theory and subsequent construction of the K-network will help to illuminate the organization of these enigmatic harmonies.

“Yuri Kholopov's Monofunctional Sphere”

On 24 April 2003 we in music theory lost one of our great thinkers, Yuri Kholopov. A consummate musician, he was the preeminent Russian theorist in the second half of the 20th century. In this paper I will discuss Kholopov's concept of the monofunctional sphere through the music of Alexander Scriabin.

Kholopov bases much of his late-Scriabin analyses on a single fundamental chord from which structure emanates. The mystic chord is but one manifestation of this chord. For Kholopov though, any of Scriabin's late harmonies that feature a root and a major third and minor seventh above that root fit the description of fundamental chord. If we think of four such chords whose roots are separated by minor thirds, we realize that they would comprise the octatonic scale. For Kholopov, however, this is the monofunctional sphere.

This sphere is of paramount importance in grappling with Scriabin's late music. Also, it is extremely useful in dealing with a wide body of literature from the late-19th and early-20th centuries that feature long passages of prolonged diminished harmonies. With this concept, Kholopov is clearly more concerned with harmonic considerations. We will see, in this paper, the magnificent usefulness of the monofunctional sphere in grappling with the music of Scriabin, as well as the music of other composers.

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Saturday, 1:45 pm–3:15 pm

Set Theory

Chair: Anton Vishio (University of Buffalo)

- [Perceptual Aspects of Maximally Even and Deviant Maximally Even Sets](#)

Michael Berry (Texas Tech)

- [A Parsimonious Voice-Leading Space for Set Classes](#)

Joseph Straus (Graduate Center, CUNY)

"Perceptual Aspects of Maximally Even and Deviant Maximally Even Sets"

In this paper, I show how the maximal evenness property can alternately facilitate or hinder our ability to navigate pitch spaces aurally. Richmond Browne's concepts of pattern matching and position finding enable us to evaluate the perceptual characteristics of these scales. Several common ME sets are modes of limited transposition, a property that inhibits pattern matching. In many cases, a slight deviation from ME—a semitonal displacement—results in a set that is much more listener-friendly by producing a collection with a number of modes equal to its cardinality.

The second part of the paper applies the notion of ME and deviant-ME to second-order ME sets. Second-order ME sets are ME subsets of a set that is already ME: the most common example is the triad with respect to the usual diatonic collection. Messiaen's modes and the chords he gives as indigenous to them provide a point of entry to examine the relationship between ME sets, deviant ME sets, and second-order ME sets. In cases where the scale is maximally even, a second-order collection that deviates from ME is desired so as to facilitate pattern matching. In cases where the scale is not ME, the second-order collection can be ME without compromising pattern matching. This work serves as a starting point for investigation into the cognition and perception of neo-tonal music by the likes of Debussy, Stravinsky, and Messiaen.

"A Parsimonious Voice-Leading Space for Set Classes"

There has been considerable recent interest in parsimonious voice leading among pitch-class sets, that is, voice leading in which a single note moves by semitone. This paper describes an integrated parsimonious voice leading space for all of the set classes and explores some of its features. The space is multi-dimensional and thus difficult to grasp in its entirety. This paper offers maps of slices and chunks of the space in a format that is relatively simple to grasp and thus to use in analytical descriptions of actual progressions of harmonies. Within the space described here, the progression between any two harmonies, and harmonic successions of any length and diversity, can be meaningfully interpreted as easy or hard, near or far, with particular expressive effects associated with each possibility.

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The Legacy of John Clough: New Research Directions II

Chair: Charles Smith (University at Buffalo, SUNY)

- [The Reduction Graph as Analytic Tool](#)

Adam Ricci (University of North Carolina–Greensboro)

- [Enharmonic Systems: A Theory of Key Signatures, Enharmonic Equivalence, and Diatonicism](#)

Julian Hook (Indiana University)

"The Reduction Graph as Analytical Tool"

The work of John Clough is marked by an enduring interest in the hierarchical relationships between diatonic intervals. Employing ordered pitch class intervals mod 7, he thoroughly describes the procedures of "extrapolation" and "interpolation" and demonstrates how they elucidate melodic sequences in the music of Beethoven, Brahms and Mozart. In a paper with Cuciurean and Douthett, he renames "extrapolation" "reduction," applying it to multiplicity sequences. Though Clough demonstrates that ordered pc intervals mod 7 can be used to label the root motions in harmonic sequences, the technique of reduction has not yet been systematically applied to them. In this paper, I extend the procedure of reduction to harmonic sequences whose patterns contain more than two chords. Employing a classification scheme for sequences derived from Clough's work, I propose an analytical tool called the reduction graph that displays all sequences that are embedded within a particular larger sequence. The reduction graph proves to be an invaluable tool for relating "many-chord" sequence patterns to more familiar ones, and-more significantly-for uncovering hidden motivic parallelisms. Sequences in the music of Bach, Chopin, Schumann, and Wagner are examined.

"Enharmonic Systems: A Theory of Key Signatures, Enharmonic Equivalence, and Diatonicism"

Key signatures and enharmonic equivalence are taken as points of departure for a study of the diatonic-chromatic relationship. Key signatures are modeled as signature vectors, seven-dimensional vectors with integer coordinates, each coordinate indicating the number of sharps or flats assigned to one of the seven letter classes. Several musically meaningful operations on signature vectors are studied, and a definition of standard signature vectors (corresponding to the key signature of some major or minor key) is formulated. These definitions do not depend on any convention for enharmonic equivalence of pitch classes. Enharmonic equivalence (EE) conditions may, however, also be formalized in terms of signature vectors, called in this context EE vectors; the canonical EE vector gives rise to a familiar twelve-pc enharmonic system, but other systems are possible. Under certain conditions, these systems share many of the standard properties arising in diatonic set theory (maximal evenness, cardinality equals variety, well-formedness). The usual staff notation, including key signatures, may be realized within any enharmonic system, and various transformations (diatonic and chromatic transposition, and signature transformations that alter the key signature) may be applied to music thus notated. The interaction between the EE vector defining the system and the signature vector defining a seven-note subset thereof is subtle and sometimes unexpected. Some applications of nonstandard signature vectors and noncanonical EE vectors are shown, and the concepts described are illustrated with musical examples from the Twelve Microtonal Etudes by Easley Blackwood.

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Revisiting Established Harmonic and Formal Models

Chair: Robert Wason (Eastman School of Music)

- [Some 18th-Century Ritornello Scripts and Their 19th-Century Revivals](#)
Joel Galand (Florida International University)
 - [The Major Dominant in Minor-Mode Sonatas: Brahms's Fourth Symphony and Its Predecessors](#)
Boyd Pomeroy (Georgia State University)
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"Some 18th-Century Ritornello Scripts and Their 19th-Century Revivals"

Theorists at least as far back as Tovey have noted certain movements by Schubert and Brahms that seem anomalous, both with respect to the rest of their works and to our general understanding of the formal conventions of the classical Viennese instrumental music that constituted their horizon of expectations. It is my contention that these pieces are considered *sui generis* only because they have not been analyzed in light of more flexible eighteenth-century techniques for combining ritornello and binary procedures, whether in rondos, in concerto forms, or in concertante chamber music. This paper uses Schenkerian analysis together with concepts drawn from historical theory to reveal structural similarities between certain ritornello forms by Haydn, Mozart, and Vanhal on the one hand, and Schubert and Brahms on the other. In doing so it also expands upon previous research, notably James Webster's, that traces formal affinities between the latter two composers. Schubert's most striking formal innovations often arise from combining somewhat archaic mid-eighteenth-century formal procedures with his penchant for chromaticism and for quasi-novelistic digressions (*Einschaltungen*, to use the formal vocabulary of the time). Brahms adopted ritornello principles as a formal determinant in sonata-style movements early in his career. Perhaps not coincidentally, the Serenades opp. 11 and 16, both deliberately classicizing works, contain movements that, in their amalgamation of rounded-binary, rondo, and concerto procedures, exhibit a refreshing formal variability akin the that of early Classicism (I use that term merely as a chronological marker). The paper draws comparisons between specific pieces (e.g., the finale of Mozart's Sonata in C Minor, K. 457, and the first movement of Brahms's Trio, op. 101) not for the purpose of claiming an empirically verifiable instance of influence but rather to demonstrate strikingly similar fusions of ritornello and sonata principles. On a more general level, this paper is intended as a contribution to Schenkerian studies, specifically towards the application of the theory not only to the analysis of individual pieces but also to broader considerations of rhythm, style, form, and genre, concerns shared by such scholars as Jackson, Rothstein, Schmalfeldt, Charles Smith, and Peter Smith.

"The Major Dominant in Minor-Mode Sonatas: Brahms's Fourth Symphony and Its Predecessors"

The paper investigates an intriguing category of minor-mode sonata form: movements that tonicize the dominant in its major mode, thus proving exceptions to the generalization concerning the difference, in the minor system, between V as chord (major, with its strong resolution tendency) and as key (minor, without that destabilizing leading tone). As a key relation, such modal mismatching of minor tonic with major dominant tends to impose an artificial strain on the very nature of the minor system; for this reason it was rigorously avoided in the Classical period. It emerged as a viable alternative only in the post-Classical sonata, in which (chromatic/aesthetic) context its very problematic nature might be turned to expressive advantage. I will explore a variety of ways in which the tensions arising from the major dominant's inherent instability—expressed as a leading-tone pull towards the tonic—can affect the sonata's tonal course and middleground voice-leading basis, in extreme cases fundamentally transforming the form's very nature. Discussion of several examples from Schubert to Brahms will show how this exposition type gives rise to a range of associated tonal-formal and voice-leading

categories, including the “three-part Ursatz,” “failed exposition,” “classicizing” modal correction within the dominant-centered S, “premature” tonic return/false exposition repeat, and (in extremis) the fully-fledged “ternary sonata” (after Jack Adrian) with structural tonic return at the start of the development—the latter represented by the first movement of Brahms’s Fourth Symphony, famously characterized by Ernst Oster as a “borderline case of sonata form.” The paper concludes with a more detailed analysis of this movement, where (in this and other ways) the tonicized major dominant finds its furthest-reaching structural consequences.

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Saturday, 3:20– 4:50 pm

Harmony and Sound Play

Chair: Aleksandra Vojcic (Julliard)

- [Structuring Timbre in an Octatonic Context: The Music of Bohuslav Martinu](#)
Hubert Ho (University of California–Berkeley)
 - [Non-Functional Chromaticism in Ragtime and Early Jazz](#)
Henry Martin (Rutgers University–Newark)
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“Structuring Timbre in an Octatonic Context: the Music of Bohuslav Martinu”

Recent theorists have debated octatonicism’s ability to integrate the diatonic and chromatic elements of much early twentieth-century music. While many analyses rely primarily on pitch structure, recent research in the field of music perception and cognition has provided analysts with tools for using timbre as an essential element in delineating form. Timbre is dependent upon a number of variables including but not limited to: spectral content, loudness, attack characteristics, and pitch itself. The attractiveness of timbre as an analytical paradigm lies in its potential to permeate an entire musical work as it proceeds in time, perhaps doing for sound what Schenkerian analysis does for pitch in tonal music.

In the course of mapping out a terrain in which timbre operates, this paper invokes the Terhardt/Parncutt model of pitch perception, in particular the notions of pitch salience, pitch commonality, and critical bandwidth. The notion of “timbral harmony” as a structural entity is posited. Using three short examples from Bohuslav Martinu’s Fourth Symphony and Memorial to Lidice, I examine how Martinu utilizes timbral-harmonic complexes in his orchestrational technique as a way of mediating octatonic and diatonic aspects of the music, casting further light on Pieter van den Toorn’s notion of octatonic-diatonic interaction.

The goal is not to turn musical works into listening exercises, nor to use cognition results to validate any particular way of hearing, but rather to use psychoacoustic knowledge to inform musical readings, and to seek that elusive middleground between what Nicholas Cook calls “attention-driven” listening and perception-driven “pre-attentive” listening.

"Non-Functional Chromaticism in Ragtime and Early Jazz"

In ragtime and early jazz, harmonic function often seems easy to describe; the chord progressions in the music are usually diatonically based with any chromaticism the result of conventional secondary dominants and augmented sixth chords. While this description fits many pieces in the repertory, other pieces have provocative harmony that sounds distinctly modern, using procedures more commonly associated with the pervasive chromaticism of Charlie Parker or the third-relations of John Coltrane. Such practices within the basic tonal framework of ragtime and early jazz raise questions of coherence. How should we approach such anomalous passages? Is it better to proceed via the tonal grammar associated with the more conventional harmonic areas or should we develop distinct approaches for these non-functional passages? Might a hybrid model, incorporating insights from both approaches, work best? For this investigation, I focus on three problematic pieces: "Ballin' the Jack" (Smith, 1914), "I'll Build a Stairway to Paradise" (Gershwin-Gershwin-DeSylva, 1922), and "Euphonic Sounds" (Joplin, 1909), each of which contains non-functional progressions that traverse tonal areas only distantly related to the tonic key. In particular, I compare standard models of tonal harmonic progression to neo-Riemannian techniques in which cycles of chords involving parsimonious voice leading are seen as organizational determinants. I conclude with a summary of this study’s implications for the analysis of ragtime and early jazz and its relationship to the mix of functional harmony and non-functional chromatic progressions found in later jazz styles.

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Revisiting Established Harmonic and Formal Models

Chair: Joseph Dubiel (Columbia University)

[Pacing Transformations and Metrical Change in Brahms's Violin Sonatas](#)

Austin Patty (Eastman School of Music)

- [The Hemiolic Cycle and Metric Dissonance in Brahms's Cello Sonata in F, op. 99](#)

Sam Ng (Eastman School of Music)

- [Fluidities of Phrase and Form in the "Intermezzo" from Brahms's First Symphony](#)

Frank Samarotto (Indiana University)

- [Re-Considering the Affinity Between Metric and Tonal Structure in Brahms's op. 76 no. 8](#)

Anja Volk and Elaine Chew (University of Southern California)

“Pacing Transformations and Metrical Change in Brahms’s Violin Sonatas”

This paper explores some of the ways in which the “pace,” the rate at which events occur, fluctuates during changes of meter in passages from Brahms’s violin sonatas, Opp. 78 and 100. An account of pacing builds on descriptions of meter as composite layers of pulse by describing how metrical units at given metrical levels flow through time, both speeding up and slowing down. Changes of meter, often described in terms of “metrical dissonance,” can also be described as transformations operating through time. A change of meter involves a change of pace, either an acceleration or a deceleration, at one or more metrical levels. Hemiolas, for instance, can open up multiple paths that a stream of beats may take. While acknowledging that several paths may be possible, this paper contends that the pacing of harmonic and melodic units helps channel a stream of metrical units toward a particular path. When the pace of harmonic and melodic events accelerates or decelerates at a particular level, the associated metrical level is likely to follow a similar course.

“The Hemiolic Cycle and Metric Dissonance in Brahms's Cello Sonata in F, op. 99”

Both Schoenberg and Berg have argued that a direct consequence of rapid motivic development in the pitch domain is a highly dissonant metric environment. In this view, global patterns of metric consonance and dissonance depend on the intricacies of tonal developing variation. While this interpretation sheds light on the relations between pitch and metric structures in many tonal works, I contend that in another mode of composition metric dissonances develop independently from tonal processes. Instead, large-scale metric progressions grow out of a basic metric idea, or, in Schoenbergian terms, a metric *Grundgestalt*.

A case for study is the first movement of Brahms's Cello Sonata in F major, Op. 99. In this movement, successions of metric states follow a cyclical procedure referred to as the hemiolic cycle. The cycle is first defined as the sequence of beat positions (in the notated meter) of accents that project the hemiola (i.e., <1-3-2-1>), and subsequently expanded, using transformational tools, to provide the blueprint of metric progressions within subphrases, phrases, and formal sections. Further, the cycle communicates closely with important tonal events, as revealed by a Schenkerian analysis of the tonal structure. The penetration of the cycle into different formal levels betrays its role as a sort of basic temporal shape of the metrically complex movement.

“Fluidities of Phrase and Form in the “Intermezzo” from Brahms’s First Symphony”

Of the four unique movements that fulfill the function of the Scherzo and Trio in Brahms’s symphonies, that of the First Symphony, its third movement, resembles a lyric Intermezzo in its apparently ternary form. Taxonomy aside, Brahms has infused this more traditionally segmented form with the fluidity and developmental impetus associated with sonata movements, to the extent that the entire movement seems almost to fall within a single breath.

Schenker’s enigmatic analysis of the opening five-bar unit reveals a subtle contrapuntal

displacement and fluid phrase expansion that will be seen to inform the entire movement. This expansion is implicated in its highly original form. The opening melody recurs as an ever-expanding antecedent but is not tonally closed until the end of the movement and flows without break in an F-minor theme, which is also left open and never repeated. This unique theme will be seen to result from a motive enlargement of the opening bass line. The A section of the Intermezzo remains suspended on a dominant half cadence; the contrasting Trio is in the key of flat III but sounds more as a flat VI enclosed within a prolonged E-flat, which resumes its role as dominant in an even more emphatic half cadence in the transition after the Trio. The Trio itself has special metric conflicts, also noted by Schenker, that will be further discussed as enhancing its feeling of tonal contingency. The sum total is an overall effect of a single fluidly expanding antecedent that subsumes any contrasting episodes and awaits the close of the movement for resolution.

"Re-Considering the Affinity Between Metric and Tonal Structure in Brahms's op. 76 no. 8"

The relation between metric and tonal structures is a controversial discussion in music theory. Brahms's music is well-known for both its metric and harmonic ambiguities. According to David Lewin and Richard Cohn, Brahms's Capriccio, op. 76 no. 8, is characterized by a deep affinity between metric and tonal processes. Both theorists analyzed the first section of the piece and found different metrical states in 6/4, 3/2, and 12/8 that correspond to harmonic regions associated with tonic, subdominant, and dominant. Starting from this coincidence, they develop mathematical arguments supporting a deep affinity between harmony and meter. We re-consider the study of this relation from a different perspective using independent mathematical models, namely Metric Analysis and the Spiral Array, that describe the metric and tonal domains. Inner Metric Analysis investigates the metric structure expressed by the notes independently of the notated bar lines, based on the active pulses of the piece. When applied to the Capriccio the model detects the different metrical states of 6/4, 3/2, and 12/8. The Spiral Array Model is a three-dimensional realization of the *tonnetz* which embeds higher-level tonal structures such as triads and keys in its interior. When applied to the Capriccio, the model segments the piece into tonally stable sections that correspond to Lewin's and Cohn's observation. The comparison of the results of these models provides further evidence of what Lewin and Cohn have proposed about a close relation between harmony and meter in Brahms's op. 76 no. 8.

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Music After 1950

Chair: Rebecca Jemian (Ithaca College)

- [Symmetrical Properties of Rotational Arrays in Stravinsky's Late Music](#)
Paul Lombardi (University of New Mexico)
 - [Rhythm and Timing in the Two Versions of Berio's *Sequenza I* for Flute Solo: Psychological and Musical Differences in Performance](#)
Cynthia Folio and Alex Brinkman (Temple University)
 - [Sectional Tonality in Pop-Rock Music](#)
Guy Capuzzo (UNC–Greensboro)
 - [Dementia and Voice Leading in "The Sentry" from Peter Maxwell Davies's *Eight Songs for a Mad King*](#)
Martin Kutnowski (Queensboror Community College, CUNY)
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“A Symmetrical Property of Rotational Arrays in Stravinsky’s Late Music”

This presentation examines symmetry based on the occurrences of pitch classes in hexachordal rotational arrays. The symmetry directly corresponds to the interval vector of the generating hexachord. Rotational arrays are examined using algebraic equations and a representation of concentric circles. Stravinsky projects this symmetry in the following two excerpts: Requiem Canticles, Exaudi (mm. 7680) and A Sermon, A Narrative, and A Prayer (mm. 7585). In these excerpts, the symmetry is emphasized by duration or orchestration.

“Rhythm and Timing in the Two Versions of Berio's *Sequenza I* for Flute Solo: Psychological and Musical Differences in Performance”

This paper is an investigation of rhythm/timing issues posed by the two different editions (1958 and 1992) of Luciano Berio's *Sequenza I* for flute solo. The first edition was notated proportionally (with hash marks to indicate timing), while the later one translates the hash marks into precise rhythmic notation. Our initial hypothesis was that the new notation results in significant differences in performances. To test this, we used computer programs to analyze precise timings from ten professional recordings of the piece. We discovered that there are important differences in timing between those flutists who used the old edition and those who used the new one. There were also differences in "musical" factors, such as phrasing, motivic grouping, articulation, and accentuation.

The presentation consists of three parts: (1) a comparison of the rhythm/pitch differences between the notation of the editions and discussion of the psychological differences in playing (and teaching) from the two different scores; this discussion is supported by interviews with professional flutists who have performed and/or taught the piece; (2) graphic presentation of the performance data, with some specific examples of similar and different interpretations; and (3) summary of the rhythmic and "musical" differences between performances of the early and late versions.

The aim of our study is not so much to prepare a performance through analysis as it is to analyze actual performances. However, the conclusions provide insights into the performance tradition of *Sequenza I* and de-mystify the real musical differences between Berio's "free" and "controlled" notational systems.

“Sectional Tonality in Pop-Rock Music”

Pop-rock songs that avoid tonal closure typically use one of three procedures. The first category involves what Everett (1997) and Ricci (2000) call the “pump-up,” a modulation by half- or whole-step at the end of a song. A second category involves postponing tonal resolution until the opening harmony of the following song, e.g. “Because” by the Beatles (Everett 1999, 259). A third category, which I call sectional tonality, has received less attention from pop-rock scholars. Everett (2000, 311-

312) describes sectional tonality as follows: “Some songs alternate between unrelated key areas, each expanded in entire sections, creating a nontonal whole. . . . Sections revolve around separate tonics and closure is not provided by any overall directed voice leading . . . Schenkerian analysis would be useful in defining events within sections of such songs, but cannot suggest organic wholes.” Everett is silent about an important issue: Without insisting on any sort of closure, what types of closure might sectionally tonal songs employ in lieu of tonal closure?

In this paper I demonstrate ways in which non-pitch factors such as ritardandi, hypermeter, and clock-time duration imbue sectionally tonal songs with a firm, though different, sense of closure. In addition, I show that tonal, harmonic, and rhythmic motives impart sectionally tonal songs with a degree of coherence strong enough to offset the absence of tonal closure; this echoes Anson-Cartwright's (2001) distinction between closure and coherence. Finally, I revisit analyses of the Beatles song “Lucy in the Sky with Diamonds” by Everett (1999, 104-105) and Moore (1997, 32-33), which Everett and Moore interpret as monotonal but I interpret as sectionally tonal.

"Dementia and Voice Leading in 'The Sentry,' from Peter Maxwell Davies' *Eight Songs for a Mad King*

Previous representative analyses of *Eight Songs for a Mad King* in general concentrate on the “mad” nature of the music and, in so doing, justify musical structure almost exclusively in terms of dramatic needs. Departing from intuitive aspects of the musical grammar—density, cadential gestures, motivic/intervallic identity—and extending analytical strategies of Jonathan Harvey, David Roberts, and Peter Owens, I examine harmonic progressions in the first song of the cycle that suggest a systematic approach to post-tonal voice leading. In these instances, register and harmonic rhythm are the only features of the musical surface that recall traditional phrase structure; individual sets seem sufficiently different from one another to discourage any kind of consistent voice-leading, but, on the other hand, their juxtaposition suggests a gradation of change, a certain order within a relatively structured—controlled—transformation. Following this intuition, and since the larger sets share subsets such as [0,1,2,5] and [0,1,2], the harmonic occurrences are hence rethought as the expression of simultaneities arising from the combination of smaller subsets. The resulting tricords and dyads, interlocked in a kind of contrapuntal design, generate their own independent transformational and quasi-transformational paths. Building large sets by combining smaller ones is an integrative way to generate pitch material; an approach complementary of the reductive process called “sieving.” By breaking larger sets into contrapuntal subsets my analysis unveils a purely musical coherence, one that is surprisingly independent from any dramatic consideration.

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Chromaticism

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-

“Tonal Polarity and Chromatic Harmony in Liszt's Symphonic Poem *Hamlet*”

The evolution of tonal practice during the nineteenth century has received much attention in recent decades, and the music of Franz Liszt has been frequently analyzed to demonstrate techniques such as chromatic harmony and tonal duality. With the exception of the *Faust Symphony*, however, most such analyses have been drawn from the composer's works for piano. This paper explores Liszt's use of advanced compositional techniques in the introductory section of his symphonic poem *Hamlet* (1858). In a possibly unprecedented tonal plan, the main tonality of B minor is juxtaposed with the semitone-related secondary key of C minor. A transformational approach is used to explore the relationship of these two keys. The introductory section features several harmonic progressions that range from triadic but nonfunctional to seemingly atonal. These passages are modeled using techniques drawn from neo-Riemannian theory, including Cohn's LPR loop. An apparently atonal passage illustrates the confluence of diatonic and chromatic structure. The passage can be understood as a series of parallel tenths, supported at a deeper level by the principle of parsimonious voice leading. Liszt's *Hamlet* thus serves both as an early example of neo-Riemannian relations and as an instance of that compositional practice situated on the cusp between diatonic and chromatic harmonic organization.

"A New Theory of Sixteenth- and Seventeenth-Century Chromaticism"

This paper has two purposes: To briefly survey existing theories of earlier chromatic works, and to propose a new theory of this chromatic repertoire.

Recent scholarship has emphasized the differences between twentieth- and sixteenth-century conceptions of chromaticism; namely, that earlier theorists only considered chromatic works containing the chromatic semitone, and that the definition of chromaticism as tones outside the key is therefore irrelevant to this music. However, limiting chromaticism to melodic progressions containing a chromatic semitone is also invalid, for two reasons: First, the distinction between chromatic and diatonic semitones is false, and second, composers of this period had a much broader view of chromaticism including many progressions without any chromatic semitone.

I will therefore propose a new method of understanding and analyzing this chromatic repertoire, one based not on semitones but on tonal systems. I will show that not every chromatic tone is an essential part of the musical structure, and that chromatic progressions arise not from any particular kind of semitone but from ambiguities in tonal systems. These ambiguities result either from the juxtaposition of two incompatible systems (juxtaposed diatonicism) or from the abandonment of any diatonic context (suspended diatonicism). These concepts of juxtaposed and suspended diatonicism can be used along with reducing out non-essential chromaticism to present a more complete, coherent picture of this chromatic repertoire. I will conclude with the implications of this work for chromaticism of later periods.

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