Obsession and Paralysis in Tobias Picker's *Thérèse Raquin*

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> *While I was writing* Thérèse Raquin*, I forgot everybody and lost myself in a precise, minute production of life, giving myself up entirely to an analysis of the working of the human animal; and I can assure you that there was nothing immoral for me in the cruel love of Thérèse and Laurent, nothing that could arouse evil desires.*
>
> Émile Zola, Preface to *Thérèse Raquin*

Nineteenth-century Parisian literati were fascinated by the downtrodden, the pathetic, and the pitiable, but also by the sensual, which seemed to be the antidote to such states of human darkness. Rather than dwell upon these depressive emotional states themselves, however, Émile Zola sought to create a new world of literary naturalism that would enable him to describe with perfect detachment the behavior of the "human animal," which he did in his 1867 novel, *Thérèse Raquin*.[1] While at the surface of this work, the plot may seem to develop around an adulterous love affair, disability provides the impetus for the entire story, its causes and its effects. Thérèse's husband, Camille, has been an invalid since birth, which prompts Thérèse to take a lover; she and her lover murder Camille; the shock of the murder then causes Camille's mother's stroke. Thus, the functionality of body and mind among Zola's characters provides a locus of meaning in the novel, reinforcing the clinical, observationary method employed by the author.

Tobias Picker, composer

Where the novel reads with the chilly clarity of a scientific report, its operatic counterpart fills with music the emotional void so purposefully left by Zola. Tobias Picker's third opera, *Thérèse Raquin* (2000), rewrites Zola's novel into a tale of obsessive love that fulfills not the ideals of the Naturalist school of literature, but rather, those of the opposing Romantic school. Zola's treatment of the "human animals" in his novel relies largely on a harsh and filthy social environment and his invention of his characters' heredity to determine their fate. Picker's musical setting brings to bear upon the characters a more idealistic, symbolic perception of their lives; the composer even writes an unsettling ghost aria for Camille, reflecting the Romantic penchant for the supernatural. Through this musical treatment, the physical and psychological states of the characters in *Thérèse Raquin* come to either represent or butt against their

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respective positions along a continuum of morality. This article particularly examines Picker's opera from the standpoint of its relationships with physical disability and mental illness. The opera itself represents a rewriting of obsession (Thérèse, her lover, Camille's ghost) and paralysis (Camille's mother) according to twenty-first century perceptions of disability. Picker's own admittedly Tourrettic tendencies in composition also contribute significantly to the turn-of-the-millenium cultural product that is *Thérèse Raquin*.[2]

Obsession is a concept that receives both praise and blame in modern society. As Lennard Davis aptly notes, "[a]t the beginning of the twenty-first century, obsession is seen both as a dreaded disease and as a noble and necessary endeavor." Davis then asks: "How can a disease also be, when you use a different lens, a cultural goal?"[3] In musical circles, obsessive behavior is prized and encouraged: professional orchestral musicians in training must practice the same symphonic excerpts for hours each day for years until they land permanent positions; composers have long been lauded for obsessive and excessive productivity, even over and above the quality of their work; and conductors should and must possess unparalleled fervor in learning full orchestral scores by heart. As Davis writes, "No scientist or musician's reputation is safe without the word 'obsessed' tacked to his or her occupation."[4] It would seem that with the opera *Thérèse Raquin*, the perfect merger of obsessive scientist (Zola) and musician (Picker) has finally taken place. Yet, obsession is also understood as a destructive force, crowding out the "normal" in order to make space for the abnormal that is its object. In clinical terms, we—particularly in the United States—are culturally aware of and familiar with Obsessive Compulsive Disorder (OCD) and its symptoms, to the point of using the acronym freely to denote any behavior that would signal tendencies toward dislike of germs, deviant sexuality, or superhuman neatness.

Thus, this dichotomy of obsession as both desired and reviled seems to have its origins in both medical and cultural arenas. Because Zola's novel takes place in nineteenth-century Paris, it is not too far-fetched to reference the obsessive musical *oeuvre extraordinaire* of Hector Berlioz, and specifically his *Symphonie fantastique*, in constructing a narrative of obsession in the Romantic era of Western art music. Whether desirable or not, Berlioz's *idée fixe* repeatedly returns to his young artist in the form of the symphony's unifying musical theme, from which even death cannot free him. As Blake Howe has noted,

> Music has the potential to map onto the mental spaces of obsession. Indeed, there are a number of compositions that seem to reinforce these psychiatric models, representing obsession as the product of a static note or group of notes interrupting an otherwise steady flow of melody or harmony. The obsessive musical agent—stuck, fixed, rigid—interferes with the expected forces of motion along musical paths and goal-oriented progressions, either by restricting the range of movement within the obsession's fixed parameters or by irritating an otherwise consonant passage with dissonance.[5]

The specific association of obsessive passion with musical phrasing sets the compositional and cultural stage for Picker to write his own obsessive theme in the nineteenth-century mono-maniac style, while also alluding to its potentiality as a musical signifier for paralysis. While Picker has been known to compose twelve-tone works, he did not choose to set *Thérèse Raquin* in intellectually acute but emotionally spare serialism, as might befit Zola's naturalist approach to his novel.

A scene from Thérèse Raquin *by the Dicapo Opera Theater.
Photo by Hiroyuki Ito for* The New York Times

Rather, Picker takes his creative cue from Berlioz and his cohort, bringing a sense of humanity to the opera

that is not found in the novel, and nudging the listener towards repetitive use of thematic material. The Romanticization of Zola's characters through the musical setting also engenders a sense of sympathy for their actions and reactions, which renders them less morally reprehensible. Yet, Picker utilizes the tools of added dissonance and musical dissolution to construct their respective downfalls—physical, moral, and spiritual.

Much of the action in Zola's *Thérèse Raquin* occurs through the omniscient narrator, who is, in essence, Zola himself. The setting of the novel is put forth in very explicitly symbolic terms. The action will be as grim as the Paris scene presented in the opening pages:

> At the end of the *Rue Guénégaud*, if you follow it away from the river, you find the *Passage du Pont-Neuf*, a sort of dark, narrow corridor linking the *Rue Mazarine* to the *Rue de Seine*. This passageway is, at most, thirty paces long and two wide, paved with yellowish, worn stones which have come loose and constantly give off an acrid dampness. The glass roof, sloping at a right angle, is black with grime.[6]

In this piece, Zola's gloomy setting foreshadows the lovers' eventual torrid affair and subsequent demise. This establishment of mood not mitigated through dialogue, but rather, through the heavy smell and dim light of the *Passage du Pont-Neuf*. While the problem of translation from novel to a staged, sung work exists throughout operatic literature, it is particularly difficult when the literary work depends so deeply on setting and narration as tools for plot development. Picker's librettist, Gene Scheer, chose not to employ a narrator—who might have been a Zola-esque character—or a Greek chorus, but instead relied entirely on dialogue to establish the narrative. This choice alone ushers the action of the opera out of the realm of Zola's Naturalism and into that of Romantic passion, because the characters themselves must explicate their own histories for the audience, thereby inviting sympathy for their actions.

A prime example of this shift is the operatic treatment of the title character. Picker's silent, sullen Thérèse sings for the first time only when the name of her lover, Laurent, is first mentioned, after one-hundred and ninety measures of silent reaction to others' dialogue. Her vocal presence depends entirely on Laurent; without him or the idea of him, she does not sing, but only lives through a fragment of a repeated motive: "Thérèse, Thérèse, Thérèse." Camille's past as a childhood invalid, overprotected and to some extent constructed by his mother, emerges not through the unbiased and dispassionate voice of the narrator, but instead gradually emerges through the voice of Thérèse. In her first aria, found in digital Example 1, Thérèse details the paltry existence of her life with the Raquins.[7] But because she herself provides the information, her racial otherness as a half-Algerian child, a by-product of French colonial occupation, has been erased. Zola described the incident of Thérèse's adoption thus:

> [Madame Raquin] had a vague notion that the dear little thing had been born in Oran and that her mother was a native woman of great beauty. An hour before he left, the captain handed over a birth certificate in which Thérèse was recognized by him as his child and bore his name. He left and they never saw him again. A few years later, he was killed in Africa.[8]

In essence, the vestiges of Thérèse's identity—memories of her mother and father—gradually faded until she was as a person dead. In Zola's novel, Thérèse might be read as an allegory for the restlessness of the suppressed Algerians, colonized by France in 1830. Despite the notion that "it was the continued colonization of Algeria that promised to remedy France's social ills," the Algerian situation—much like that of Zola's heroine—would explode to a deadly, yet freeing, outcome.[9]

In the opera, however, we meet Thérèse in adulthood, and the African blood that Zola considered so crucial to her general character—though stereotypically colonialist in treatment, to be sure—has no bearing on the listener-viewer's perception of her as a character. She might as well be any other Parisian woman in Picker's opera, and Scheer makes no allusion to her racial otherness in the libretto.[10] Thérèse

may be the product of a morally questionable union by the standards of her contemporaries, but in the opera, her ancestry as a woman of mixed race and nationality has been cleansed of any cultural impurities, leaving only the moral ones behind.

Picker and Scheer skillfully capture the obsessive, physical love that forms the basis of the relationship between Laurent and Thérèse in the opera through the use of anaphoric repetition of names and phrases in her Act I aria "My father left me" (digital Example 1 above). Yet, in the interaction between Thérèse and Laurent within this piece, the palpable difference between their relationship in the novel and that in the opera becomes apparent. In the novel, Thérèse's emotional and social growth has been as forcibly stunted as Camille's physical and intellectual development; as well, she has deeply repressed all physical desires, because "Camille's blood had been impoverished by illness and he felt none of the urgent desires of adolescence."[11] Thus, Thérèse's sexual awakening has all of the violence of a volcanic eruption in Zola's novel, while in Picker's opera, the

Suzan Hanson (left) and Ani Maldjian (right) of the Long Beach Opera perform Thérèse Raquin. *Photo by Cheryl A. Guerrero of the* Los Angeles Times

scenes between Thérèse and Laurent might be those of any other *bel canto* operatic couple. In addition, according to the opera's timeline, Camille's infirmity is a thing of the past by the first scene. He seems delicate, but his dialogue has no hint of weakness—indeed, Camille conducts himself as a robust, enthusiastic and happy individual, even having his wife's best interests in mind. We hear nothing of his suspected sexual impotence, or of his years of fevers and near-death experiences, saved only by his mother's care and forbearance. He sings to

her at the beginning of the opera, "You must let me go, Mama. My illness now has passed. Let me move on like the river. I am strong enough at last," with this last phrase on high A's and B's, which would indicate a state of increasing health and vigor.[12] It would seem that the only vestiges of Camille's invalidism are his mother's fear and his wife's dissatisfaction.

Just as obsession plays out as a kind of musical excess in the opera, so does the shocking paralysis of Madame Raquin. The wedding night scene begins what will be a swift dissolution of all aspirations established in the first half of the opera. As they try to embrace, Laurent and Thérèse gradually come to realize, to their mutual horror, that the drowned corpse of Camille will always be joining them in their marriage bed. After a long, hellish night of terror beneath the haunting portrait of Camille that Laurent himself painted in Act I, the couple finally falls asleep with the rising sun. Picker takes this opportunity to unleash the ghost of Camille upon the sleeping pair, in an aria that screams for justice from beyond the grave.

Camille's "Ghost Aria" continues the theme of repetition that is one of the hallmarks of musical obsession and excess in this opera. The repetition in the aria occurs both verbally as well as in the rhythmic repetition that pushes the piece forward, almost as though a living man were pushing the corpse from behind with a great effort and regular step. The continuous eighth-note pattern that propels the piece also trips on occasion, as though running into a rough piece of pavement or sliding on a slimy rock on a dank night near the morgue. Although the rhythm of the orchestral accompaniment is quite steady, the vocal line jerks in and out of the musical scene, as reflected in the irregular poetic rhythm of the aria's text.

Camille's vocal range is extreme in death as it never was in life, and Picker calls for singing both at the very top and bottom of the tenor register, and at very loud and very soft dynamic levels in quick and sudden succession. As is apparent from the aria's words and the exclamatory mode of delivery called for by the composer, Camille has found beyond the grave a passionate, vengeful obsession that can only be compared in its intensity to that of the newly-wedded couple, his murderers. Take, for example, this line: "They

kissed each other while I drowned. While I drowned they kissed, they kissed, they kissed, they kissed while I drowned, while I drowned."[13] The text repetition employed by Picker and Scheer transcends the typical, crossing over into a pointillist poetry of singlemindedness. See Digital Example 2.[14]

The musical tools Picker uses in the aria reflect Zola's description of Laurent's all-too-frequent visits to the Paris morgue to view the various bodies, culminating in his final recognition of Camille's drowned, rotting corpse. Zola describes in this passage Laurent's first encounter with the body of his victim. Although frequent visits to the morgue had desensitized him to the awful effects of death, even by drowning, Laurent still feels an impact upon discovering Camille.

> The next day, on entering the Morgue, [Laurent] received a violent shock in the chest. Opposite him, on a slab, Camille lay looking at him, extended on his back, his head raised, his eyes half open. The murderer slowly approached the glass, as if attracted there, unable to detach his eyes from his victim. He did not suffer; he merely experienced a great inner chill, accompanied by slight pricks on his skin…. For fully five minutes, he stood motionless, lost in unconscious contemplation, engraving, in spite of himself, in his memory, all the horrible lines, all the dirty colours of the picture he had before his eyes.[15]

Zola continues in the passage to describe in detail the gruesome appearance of Camille's drowned body, down to the smallest anatomical detail. Finally, Zola allows Laurent to walk away from the morgue. But "as he stepped out, he repeated: 'This is what I have done. He is hideous.'"[16]

Three aspects of Zola's passage bear particular importance to Picker's opera, not only in the ghost aria, but also in the scenes that follow pertaining to Madame Raquin's imminent paralysis. First, note that in the novel, Camille is on a slab in a decidedly horizontal position, whereas in the opera, Camille's ghost is upright and active, vertical in all senses. Second,

the motionlessness with which Laurent receives the sensory information of Camille's body is akin to a momentary paralysis, which then takes its full form on the body of Madame Raquin later in the opera. Third, the notion of repetition, as aforementioned in relation to the text of Camille's aria, haunts the end of Laurent's encounter with the corpse. Each of these three literary devices has its logical parallel in Picker's music, with the idea of repetition standing out as the most easily understood both in the score and in the text. But the concepts of verticality and paralysis are seemingly more troubling, particularly when paired.

Madame Raquin's paralysis occurs in the opera almost immediately after she witnesses the ghost of her murdered son, Camille. Before fainting, she screams in terror, "Camille! Camille! My son! My son!" Laurent and Thérèse enter and discover that Madame Raquin is unwell, and place her upright in a chair; but in their stupor from the previous night's sleeplessness they neglect to notice that Madame has awakened and that she can hear them speaking of Camille's murder. After a brief exclamation ending in "Murderers! Murderers!" the score indicates that Madame Raquin has a stroke. While the book continues for a considerable length after the stroke event, the opera has but two scenes remaining after Madame Raquin becomes disabled. Although Scene 7 begins with Laurent's brief but disturbing account of his time as caretaker for Madame Raquin, this scene also contains the climactic moment when, after months of motionlessness, Madame Raquin attempts for the police inspector's benefit to write that "Thérèse and Laurent are m…" (murderers). Unfortunately, she can only achieve the first letter of that final accusatory word. And Scene 8 plays out the dual suicide of the lovers, which occurs in the presence of Madame Raquin.

These two final scenes tease out a musical enactment of paralysis that connects with both the composer's own identity as a person with a neurological difference and with the music as having certain attributes that need not be normalized. Oliver Sacks features Picker briefly in his book *Musicophilia*, within the chapter on music and Tourette's syndrome. Rather than relate an inspirational story of how music has "cured" him, however, Picker notes that he has "harnessed [Tourette's] energy—I play with it, manipulate

Obsession and Paralysis (cont.)

it, trick it, mimic it, taunt it, explore it, exploit it, in every possible way."[17] Picker's claiming of his disability also relates to his deep conviction that the Tourette's tics that seem to disappear when he composes have found their way into the music. He writes: "It may be true that there's a 'Tourettic energy' that fuels my work to some degree. Sometimes my music strikes me as having Tourettic characteristics in its sometimes irrational changeability and sudden outbursts."[18] The music of Act II particularly lends itself to this conception of being "Tourretic" in nature, especially Camille's ghost aria, with its erratic dynamic and range changes. But the composer also notes that he doesn't believe it's the only factor for analysis of his works, and not perhaps the most important idea at play in his music.

Yet Picker has established that without Tourette's his compositions would be decidedly different; indeed, he does not wish to be cured of the syndrome entirely lest it utterly transform his compositional process. The same principle of normalization applies to the music of *Thérèse Raquin*. Joseph Straus has asserted: "If a work of music is metaphorically a body, then an excess of verticality, particularly if it involves the piling up of dissonant notes, is a disabling condition, one that restricts and potentially paralyzes movement."[19] The troubling verticalities of the second act of the opera not only include Camille's disturbing upright and out-of-morgue appearance in the Ghost Aria, but also, in the most direct musical sense, the vertical axis of the music, which traditionally includes chords and harmonic function. Camille's verticality threatens to destabilize the whole scheme of the murder, given that his ghostly return to the shop is the indirect cause of Madame Raquin's stroke. As well, the narrative changes when Camille returns after his death: his conviction that Laurent and Thérèse are cold-blooded murderers and artists of betrayal removes the chilly journalistic effect that Zola had so hoped he would achieve with this piece. Musically, the whole of the second act is much more dissonant than the first. It's as though Picker has altered his compositional style from Neo-Romanticism to freely atonal Expressionism in one opera. The transition from one style to the other occurs primarily through the harmonic, or vertical, features of the piece, such as chords. If these chords are so jarring or dissonant as to stop the flow of harmonic function

(the way it feels comfortable to get back to the home key area), then a kind of musical paralysis has occurred along with the literary one in Act II.

While the plot of this opera appears to revolve around an affair, it is actually the obsessive qualities of the couple's interactions, as well as Madame's forced invalidism of her son, that lead to the murder, and thus to the major crisis of this piece. These events are further complicated—or enriched, depending upon individual viewpoint—by the subsequent paralysis of Madame Raquin and the reappearance of her son. The composer's "Tourettic" compositional tendencies, far from impeding the composition of this work, make *Thérèse Raquin* a product of disability culture from the inside out.

Notes

[1] Émile Zola, *Thérèse Raquin*, trans. Robin Buss (London: Penguin Books, 2004 [1867]), 2.

[2] Tourette's Syndrome is a type of tic syndrome that does not affect cognitive ability. For additional information, see the website of the Tourette Association of America, <https://www.tourette.org/about-tourette/overview/what-is-tourette/> accessed 27 May 2016.

[3] Lennard J. Davis, *Obsession: A History* (Chicago: University of Chicago Press, 2008), 3.

[4] Ibid.

[5] Blake Howe, "Music and the Metaphors of Obsession," Unpublished manuscript, 2010.

[6] Zola, *Thérèse Raquin*, 9.

[7] <https://www.youtube.com/watch?v=RvopwKZ3hhs> accessed 26 May 2016.

[8] Zola, *Thérèse Raquin*, 15.

[9] Benjamin McRae Amoss, "The Revolution of 1848 and Algria," *The French Review* 75, no. 4 (2002): 745.

[10] Tobias Picker, *Thérèse Raquin: An Opera in Two Acts* (New York: Tobias Picker Music, 2001), 39-45 (vocal score).

Obsession and Paralysis (cont.)

[11] Zola, *Thérèse Raquin*, 17.

[12] Picker, *Thérèse Raquin: An Opera in Two Acts*, 13-14.

[13] Picker, *Thérèse Raquin*, 222-232.

[14] <https://www.youtube.com/watch?v=lXpH2Ukmg-o> accessed 26 May 2016.

[15] Zola, 74.

[16] Ibid.

[17] Tobias Picker, quoted in Oliver Sacks, *Musicophilia: Tales of Music and the Brain* (New York: Vintage Books, 2007), 252.

[18] Tobias Picker, quoted in Jessica Duchan, "How making music helped me fight Tourette's" in *The Jewish Chronicle Online*, [ital.] 1 July 2011, <http://www.thejc.com/arts/music/50979/> accessed 26 May 2016.

[19] Joseph Straus, *Extraordinary Measures: Disability in Music* (New York: Oxford University Press, 2011), 120.

Institute News

Jeffrey Taylor, Brooklyn College

Congratulations to our Graduate Fellow **Whitney George**, who recently conducted her ensemble The Curiosity Cabinet in the performances of two works. The first, on 23 May at Dixon Place in Manhattan, featured *Night: Like Velvet, in Twelve Letters*, in which George set texts by Sylvia Plathe and Ted Hughes in a non-linear song cycle that evoked the sometimes strained relationship between the two poets. Beautifully sung by soprano

The Curiosity Cabinet performing
Whitney George's Night, Like Velvet: in Twelve Letters
Photo by Aleks Karjaka — Karjaka Studios

Sharon Harms, the twelve movements (each composed during a different month of the year) featured a male actor, aerialist, and dancer, all accompanied by the rich contrapuntal textures of the nine-piece ensemble. Then on 10 and 11 June, at the DiMenna Center, The Curiosity Cabinet was featured again in a staging of George's one-act opera *The Yellow Wallpaper*, based on an 1892 story by Charlotte Perkins Gilman. Gilman's story follows the descent of Victoria (the central character) into insanity after her husband confines her in a room lined with paper that made her "think of all the yellow things I ever saw—not beautiful ones like butter cups but old, foul, bad yellow things." First performed in 2010, George had extensively revised the piece, adding a role for baritone. Though performed with a minimum of costumes, sets, and lighting effects, the work vividly portrays how the main character's unease blossoms into terror as she begins to see figures behind the wallpaper. But far from the hysterical woman of stereotype, Victoria emerges from her ordeal free and defiant. Judging from the enthusiastic responses by capacity crowds at both events, these two works deserve a long performance life. Brava!

On 8 February the Institute hosted a talk by renowned Cuban composer and conductor **Guido López-Gavilán**, who is President of the Havana Festival and Chairman of the Orches-

tral Conducting Department at the Instituto Superior de Arte. We hope that this event with Maestro López-Gavilán made the first of many new connections between Cuba and the Hitchcock Institute, as trade and travel restrictions begin to loosen. On 21 March, Senior Research Associate **Ray Allen** shared research for his upcoming book in "Jump Up! The Brooklyn Soca Connection," and on 4 May **Michael Weinstein-Reiman** gave some new insights into the contemporary pop scene with "Going Postal: Posthumanism, Queerness, and Nicki Minaj's 'Monsters.'" Finally, in what is becoming an annual "global jazz" event, the Institute partnered with The Central Brooklyn Jazz Consortium in "An Evening of Calypso Jazz" on 21 April, featuring trumpeter Etienne Charles, composer and pianist **Frankie McIntosh**, steel pan artist **Garvin Blake** and bassist **David "Happy" Williams** as well as **Arturo O'Farrill** and the Brooklyn College Big Band.

In January Institute Director **Jeffrey Taylor** was interviewed by Special Advisor **Randall Horton** for an episode of the American Music TV series now being produced at Brooklyn College. As mentioned in our last issue, the Institute hopes to become much more involved in the ongoing creation of these programs. The episode, in which Taylor talks about the scholarly study of American music and the history and mission of HISAM, will be posted on our website. Research Associate **Stephanie Jensen-Moulton** started off a busy spring of lectures at the annual meeting of the Society for American Music, where she participated in a panel of speakers on diversity and inclusion. She also presented on Disability and Music at Clark University, and gave keynote lectures at both Rutgers University and Lehman College on disability in John Adams' opera The Death of Klinghoffer. **Ray Allen** continues his research on Brooklyn Carnival music. This spring he delivered two presentations on the topic: "Who is Globalizing Whom? Brooklyn Soca Music and Transnational Musical Practice" at the Society for American Music annual conference in Boston, and "Steel and Brass in Brooklyn: Carnival Music, Globalization, and Transnational Identity," at the CUNY Graduate Center's Musics, Immigrants and the City conference. And amidst a busy performing schedule, Research Associate **Arturo O'Farrill** led a premiere of his "Cornel West Concerto" at Harlem's Apollo Theater on 21 May. Writer, teacher and activist West provided inspiration for the work, which was commissioned by the Apollo. West himself performed an oration in four sections, with each punctuated by instrumental solos. The text addressed questions posed by W.E.B. Du Bois in *The Souls of Black Folk* about integrity, honesty, decency and virtue.

Celebrating Minimalism and K. Robert Schwarz

Jennifer Oates, Queens College and Jeffrey Taylor, Brooklyn College

Many of us at the Institute and Brooklyn College fondly remember K. Robert Schwarz (1959-1999), who was a Research Assistant here in the 1990s. He was an immensely talented writer and scholar and cordial colleague. Those who did not know Schwarz personally probably encountered his work in the *New York Times*, *Musical America*, and many other publications, as well as through his most significant scholarly legacy, the book *Minimalists* (Phaedon Press, 1996). Schwarz earned his Bachelor of Arts degree in music at Queens College in 1979, where his father, Boris Schwarz, was emeritus professor of violin in the Music Department as well as a renown musicologist. He completed a Masters at Indiana with a thesis on Steve Reich, and was completing a dissertation on Paul Bowles at the CUNY Graduate Center when his life was cut tragically short by AIDS.

Robert interviewed hundreds of prominent musicians of the late twentieth century, including composers such as Paul Bowles, Steve Reich, Terry Riley, Milton Babbitt, Meredith Monk, Pauline Oliveros, Ellen Taffe Zwilich, and John Corigliano, performers such as Joshua Bell, Anne Sophie Mutter, and Thomas Hampson, conductors such as James Levine and Andre Prévin, and many fellow scholars. His recordings and transcripts of the interviews, along with his papers and extensive research notes for both his academic work and criticism, were given to the Queens College Library by his family soon after his death.

We are delighted to announce that The K. Robert Schwarz collection can be viewed at the Queens College Special Collections and Archives Department (http://archives.qc.cuny.edu/finding_aids/KRobertSchwarz). All 320 tapes of K. Robert Schwarz's interviews are now available for use on CDs in the Queens College Music Library. For a complete list of interviewees, see the CUNY Catalog (do a simple search for "Schwarz interviews" at https://libsearch.cuny.edu/F/?func=find-b-0&local_base=queens). Please note, due to copyright issues, CDs must be used

in the QC Music Library and cannot be copied or published without permission from the Schwarz family and those being interviewed. Thank you to the Special Collections Department of the Benjamin Rosenthal Library and to the Schwarz family for facilitating the completion of this digitization project, a fitting memorial to a writer and scholar who left us much too soon.

K. Robert Schwarz's Minimalists

Max Morath, *Complete Ragtime Works for Piano*

Edward A. Berlin

Ragtime composition today can be divided into two broad categories: rags that adhere to the piano style of the original period, extending from the late 1890s through World War I, and those that retain the spirit and some elements of the original style, but express them with a more current musical language. Composers of the first category include many ragtime fans, amateur performers, and a few professionals. In imitating this historic music style, they adopt the well-defined conventions of ragtime: two sixteen-measure strains in the tonic followed by a "trio" of one or two strains in the subdominant, all characterized by tonal harmonies and melodies and a few stereotyped syncopation patterns. Modeled on the best rags, many of these compositions are quite good as measured against the general ragtime output of the original period, but they remain old rags recently written.

Proponents of the other category include composers established in different genres who use their skills and experience to create a ragtime that could not have existed in the earlier period. Max Morath straddles the two categories, but leans heavily toward the modernist camp. Though he has composed for many years, he is not a full-time composer; his works have been incidental to his theatrical performances that use popular music to reveal an historical Americana, with some emphasis on the ragtime years. His seventeen rags, spanning five decades beginning in 1954, reflect several styles. Not surprisingly, his earliest—the irrepressible *Imperial Rag* (1954)—assumes the manner of an historical rag, though it includes features not common at that time, such as an opening on a diminished seventh chord and triplet passages suggestive of the novelty piano style of the 1920s.

As he developed his individual ragtime style, he extended the defining trait of ragtime—its restless syncopation—with other disruptive or unsettling rhythmic devices. These are mainly (1) duple and triple meter shifts, and (2) polyrhythms, with one hand playing in three against a duple in the other. Instances of meter shifts can be found in such works as *Golden Hours* (1972) and *One for Amelia* (1964). Polyrhythms are included in such rags as *Polyragmic* (1964), *One for Norma* (1975), and *One for the Road* (1983). Morath expands his concept of unsettling rhythms further by lengthening or shortening phrases and strains; instead of the anticipated four-measure phrases and sixteen-measure strains, he may present phrases of three or five measures, strains of nine, thirteen, or twenty measures. It all throws us off stride and keeps us paying attention. Morath's harmonic language also evolved as his style developed, becoming less conventional and more complex. In *Anchoria Leland* (1981), a piece especially rich in surprises, he has touches of polytonality.

Morath's natural inclination toward drama might have prompted the programmatic effects he uses in *Echoes of the Rosebud* (1975). The title refers to Tom Turpin's *Rosebud Bar*, an early twentieth-century center for ragtime piano-playing in St. Louis. We hear familiar melodies—a little bit of Charles Hunter, some Scott Joplin—but they are not quite right: the rhythms and other elements are somewhat askew, suggesting a misty, imperfect recall, echoes in which certain details have been lost or distorted.

Max Morath, composer

All seventeen rags are treated to sparkling, robust performances by Aaron Robinson on an MAI CD. Robinson's departures from the score, mostly slight embellishments, strike this listener as spontaneous and enthusiastic responses to the music. Sample clips can be heard on the Amazon page offering individual tracks and the complete CD, and on http://www.cdbaby.com/cd/aaronrobinson8. The scores are available in the folio Max Morath, Original Rags for Piano, published by Hal Leonard (http://www.halleonard.com/). These fascinating rags are worth examining and performing.

Space Is The Place: Composition In New York City's Improvised Music Scene

Daniel Blake

> *People have a lot more of the unknown than the known in their minds. The unknown is great; it's like the darkness. Nobody made that. It just happens.*
> Sun Ra[1]

Following a 2013 performance of a string quartet in which I participated as composer and saxophonist, a colleague told me how he had enjoyed a certain passage that he assumed to be improvised. Although the passage was notated, the comment led me to reflect on the many rehearsals I had held with the quartet, during which we would discuss ideas and improvise together. We were trying to establish a working method that would break out of the conventional composer-performer model, and our hope was that it would be more suitable to the diverse aesthetic we were interested in exploring.[2] As for the passage in question, I remember settling on a shorthand notation approximating a mix of bow noise, sliding harmonics, and fast tremolos. By the time of the performance the quartet was entirely familiar with the texture, rendering my notation somewhat redundant.

In fact, the passage represented a particular aesthetic agreement we had forged together. That agreement led us to a hybrid musical structure exemplifying what Robert Morris has called a "compositional space," which I adopt here to signify a set of aesthetic possibilities that is mutually understood by a group of individuals, and which is worked out in real time.[3] These spaces represent "cracks" through which much analytical discourse about contemporary music falls, in part because they are tailored to the specific needs of one particular group or individual. To be clear, this essay is not an attempt to re-litigate the analytical binary of "improvisation versus composition,"

but rather to understand the unique practices of particular individuals who take improvisation as a given for their practice. An effort to capture a more complete understanding of compositions that are not formalized as musical scores must involve a better understanding of the musical communities from which these compositions emerged. With this potential gap of understanding in mind, I pursued the question of compositional spaces by speaking directly with musical practitioners living and working in New York City. These improviser-composers come from diverse backgrounds in African American, European, folkloric, and electronic music, and are people with whom I maintain some degree of professional affiliation as a performer.

The notion of hybridity refers to musical practices that occupy several idioms simultaneously, and not to music that self-consciously adheres to a single idiom like jazz improvisation using song forms. A central challenge in performing musical hybridity is how to create the conditions for a satisfying musical experience in the absence of either a formalized score or an idiomatic lineage to codify musical expectations. Given the extraordinary diversity of alternative approaches outside of strict idiomatic improvisation available to contemporary musicians, arriving at a sense of what constitutes a "successful performance" is itself a significant creative development for an ensemble, and therefore is worthy of greater inquiry. For a group of individuals to collectively share a feeling of mutual satisfaction in performance, they must successfully balance the different viewpoints and interests from within the group. My central argument here is that the creation of unique compositional spaces represents a way to productively mediate the complex interplay of aesthetic agreement and disagreement lying just beneath the surface of contemporary improvised

Sun Ra, 1980
Photo by Guy Le Querrec/Magnum Photos

music.[4] As vehicles to mediate an ethical communication within an ensemble, compositions open up spaces for new kinds of interaction to occur in the course of performance.

In describing improvisation as an ethical interaction, I follow the Foucauldian view of "moral behaviors" as involving "the manner in which one ought to conduct oneself … as an ethical subject acting in reference to the prescriptive elements that make up a moral code," which in this case can be likened to compositional materials that govern an improvisation.[5] The philosopher Arnold Davidson likens Foucault's "se conduire" (to conduct oneself) to Williams Parker's notion of "self-conduction" which Parker describes as "the concept of conducting oneself in and out of sections of a composition. There is also the option of creating parts or setting at the moment, working individually or as a section. The rule is the moment always supersedes the preset compositional idea. Each player has the freedom to create their own part if they feel the part they would create is better than the written part at that moment."[6] In merging the two ideas, Davidson notes that "to conduct oneself" is to improvise as an ethical subject, a subject who possesses the "freedom to create" in relation to a moral code.

This essay will discuss the process of composing for improvisers in two parts. First, the collective effort to achieve an ethical balance through musical improvisation forms the ground out of which distinct compositional spaces can emerge that allow for the kind of ethical interaction described above. This interaction takes place within a set of aesthetic possibilities that is referred to here as the "playing field." Second, three such spaces revealed in the interviews will be introduced that shift, expand upon, or consolidate the playing field in some way. In choosing to focus on the spatial metaphors musicians use to describe their work, I wish to highlight an alternative ontology to the more conventional understanding of composing as score making.[7]

Spatial metaphors are consistent themes in almost every interview I conducted and, despite the diversity of views taken up here, offer a powerful consensus on how compositions serve a unique function within New York's rich contemporary music landscape.

Improvising and Tolerance - the Playing Field

Improvisation can be likened to a form of ethical mediation where musicians are finding points of agreement and disagreement, constantly honing in real time how best to work together. This is why many ensembles do not last for more than a few sessions, while others remain together with the same personnel for decades. Defining agreement and disagreement can be tricky, as can be seen in recent scholarship interrogating notions of consensus in fields as diverse as political theory and even scientific research.[8] In a basic sense, the aesthetic agreements reached by the musicians I interviewed favor an understanding of consensus that accepts, recognizes, and values individual differences within the range of what is considered "normal."[9] Queens-based pianist Ricardo Gallo describes it this way: "To me, doing music in an improvisatory way has to do with tolerance … It has to do with finding common ground. Notation is an area of departure and what I want to get at is within that area." In connecting tolerance to "common ground," Gallo asserts that aesthetic agreement is reached collectively and is based upon a shared ethical position of tolerance. He alludes to this in stating that a notated composition can chart out an area of departure that is unknown and to which a group can venture. This evokes legendary saxophonist/composer Wayne Shorter's succinct definition of jazz music as "dealing with the unexpected. No one really knows how to deal with the unexpected. How do you rehearse the unknown?"[10]

Peter Evans, 2007
Photo by Andy Newcombe

Queens-based trumpeter Peter Evans describes consensus as having more to do with "common goals in the music rather than specific things that are happening." He continues, "That's what makes the improvised

part interesting, that there are differences in how people hear … and the decisions they make. If you play with a certain configuration of people a lot, you can do certain things on a dime, and actually that becomes an obstacle." Evans lays out a hypothetical improvising situation that describes the potential for disagreement: "Fred wants to keep playing this high sparkly shimmery stuff … he wants me to go there with him over and over. Sometimes [I] go there anyway just to help the music along!" Evans' willingness to "go there anyway" illuminates a kind of ethical conflating of agreement with what Brooklyn-based technologist Sergei Tcherepnin calls an aesthetic "sameness, a point on the playing field." For Tcherepnin, this point is but one position "from which you can also depart … [giving] you a way that you can actually speak to each other through your differences." He aptly summarizes how true consensus is not in sounding the same, but in establishing an ethical framework where a player is free to "throw something [new] onto the playing field, changing the flow of the music."

Many experienced improvising ensembles have managed this kind of interplay of intentionality by developing implicit musical understandings over months and years of working together. Ethical mediation involves a mutual trust that although a musical form can change suddenly and unexpectedly, sometimes due to an individual's whim, the ensemble's collective unity of intent and purpose will not be compromised. Although this is certainly possible without utilizing explicit musical structures to guide a performance, many of the musicians I spoke with see composing as a way to "help the music along" outside the common ground and into unknown terrain.

Compositional Spaces – Moving Outside the Playing Field

Considering musical performance as a kind of space allows us to consider musical performance as being a kind of "container" marked by discernible characteristics. The theorist Robert Morris defines compositional spaces as "out of time structures from which the more temporally ordered 'compositional design' can be composed."[11] However, spatial metaphors also offer explanatory guidance for how a performance comprised of diverse improvising musicians is structured in real time. This is apparent in how guitarist Mary

Halvorson describes her compositions as maps. In laying out her view on composition to me, she emphasized how her band handled an unplanned moment in performance:

> I had something written and it was a sixteen-bar form and the trumpet played over it. And I said the alto will join and the trumpet drops out. But then at the gig everyone in the band dropped out and suddenly it was just solo alto and we just eventually cued into the next part . . .

Although such unexpected structural re-arrangements are routine in improvised music, they are crucial to Halvorson's compositional model as they fill in areas of the map that may not have been there initially. Halvorson appreciated this event because "the whole thing is mapped out … so you can veer off but you still are in this overall structure and the composition still has to get played until the end."

This active participation in a musical landscape evokes and expands upon Mark Johnson and Steve Larson, who in recent work have noted a distinctive musical understanding based on a perceiver as moving against and interacting with an ontologically static space.[12] To veer off the map would be to leave the compositional space Halvorson has set, perhaps by ignoring given material such as chord changes or textural instructions. Halvorson concludes that "maybe that's what separates [playing a composition] from free improvisation, that these improvisations are serving the composition. I would hope that the improvisations are different than if you're just playing free." In the interest of exploring unknown terrain, Halvorson gives her ensemble significant latitude to chart their own course through the map she has introduced, so long as certain destinations are reached along the way.

In setting out a compositional strategy that best suits a particular ensemble, musicians have to balance a desire to articulate often-complex musical structures with the reality that most improvisers expect a degree of aesthetic agency when performing. This is a crucial point of distinction for African-derived music, leading Samuel Floyd to remark, "Improvising musicians gladly take the risks that come with spontaneity …

in improvised music, high ensemble precision may be sacrificed for individuality within the aggregate, with performers and listeners alike tacitly agreeing that imprecision … sometimes has its own value."[13] As Brooklyn-based saxophonist Josh Sinton notes, "I don't understand people writing for jazz trained musicians, who are improvisers, a ten-page piece. I'm not saying they are not capable of it, but that's not playing to their strengths."[14] Peter Evans aims to strike this balance through his self-described "jungle pieces," which create a compositional space characterized by density of material. Evans describes this space as "an environment for people to live in," a landscape that is "so saturated in detail that you have to hack your way through the jungle with a machete to find your path …" He adds that "it's confusing, and it's open. There's no end to it." This kind of compositional space in some ways is at once more prescriptive than Halvorson's notion of the map in that it gives performers concrete materials to interact with while improvising. At the same time, Evans accepts that performers will "hack their way through the jungle" in different ways, and therefore maintains a significant unknown element in how the space is interpreted in performance.

Evans' composition "All" is a complex contrafact based on the ubiquitous jazz standard "All the Things You Are." In addition to the melodic chromaticism that is characteristic of a typical bebop tune, players must also contend with constantly shifting tempi and detailed rhythmic counterpoint, all set within the song's original harmonic progression. Since all of this material cannot be played all of the time, Evans concludes that the piece "forces me to question my own criteria for what is a successful performance. I don't even know sometimes! Part of the reason I'm writing this stuff is for people to take risks." The risk is to cope with the uncertainty of getting lost in the jungle, to make formal decisions that may not coincide with another player in the ensemble. He recounts one such instance:

After a certain amount of rotations [the piece] started to get worse. Then it kind of fell apart and we all started laughing, and [percussionist Jim Black] said, "I was purposely trying to get myself lost." Jim was just playing these hits in totally random places out of tempo and not looking at the music so he could find his way back.

The complexity of the jungle creates the need for players to remain aware of a macrocosmic structure, which is represented here by the original tune's chord progression. Where Halvorson's compositions chart a specific course through a map, with the ensembles filling in the space with improvisations, Evans drops the players into a dense "compositional space" to be worked out in real time. Unlike a fully realized score, the "jungle" represents a network of possible rhythmic and melodic events that players of an ensemble must grapple with moment by moment.

Mary Halvorson
Photo by Peter Gannushkin

The creation of macrocosmic forms such as these is not necessarily evidence of a superior work, but one that is more suited to players interested in interpreting such structures. Saxophonist Steve Lehman refers to this as a directional orientation, "an implicit understanding or agreement in terms of musical priorities," which has to do with "what people tend to privilege within a musical space." For Lehman, improvisers tend to fall into two broad orientational categories: 1) egocentric, where that position is defined locally to one's own point in space (e.g. to my right) or 2) allocentric, where one defines their position more globally (e.g. east).[15] Lehman refers to the former as "improvising in a way where you are just using your intuition and reacting to what you hear and trying to communicate with everyone but it's all oriented around your own perception," whereas the latter is a mode of improvisation "where all of that is still going on but there is also a responsibility to uphold a kind of musical form." In this way, the composition

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becomes an orienting structure for the performance, a kind of compass that guides players regardless of their individual position in the space. Ideally, all players have fully internalized the structure so that as Lehman puts it, "it becomes an opportunity rather than a limitation … the sky is the limit in terms of individual and group decisions."

Lehman's composition "Allocentric" creates a kind of compositional space that, unlike Evans' emphasis on density, lays out several consistent musical strata to which players can refer and that remain in place throughout the piece. Lehman described the structure to me:

Steve Lehman
Photo Courtesy of SteveLehman.com

The harmonies are based off the harmonic series of four or five different pitches rounded to the nearest quartertone. Rhythmically it is a bar of 4/4 that gets divided in different ways, for example into five parts, so two long pulses and one short one, and that could last two bars. The next bar could be the same bar of 4/4, but divided into seven parts, subdivided into 2+2+2+1, and so on …[16]

As players work with the shifting temporal and intonational gradients of the scale and complementary rhythmic subdivisions, the performance is guided by what Lehman describes as "perceptual ambiguities" inherent to the structure. These ambiguities of pitch and rhythm form a larger aesthetic direction for the piece, serving as points of reference for players to maintain a cohesive orientation throughout a performance.

The compositional spaces explored here reflect how musicians engage with their musical communities. The goal of a compositional space is to lay out a set of aesthetic possibilities that are of interest to an ensemble, and which are realizable in performance. I summarize these compositional goals as follows: 1) Mary Halvor-

son's map that maintains formal continuity between improvisations that may veer off into unknown territory, 2) Peter Evans' jungle that confronts players with a saturated musical space forcing them to chart a unique path in performance, and finally 3) Steve Lehman's allocentric orientation where the compositional space functions as a compass for the performance. In all these spaces, players must balance unexpected musical events ("the unknown") with the existing musical structures. Another commonality among the spaces is that players maintain their creative agency with regard to the composition. Although all represent the result of spatial metaphors, there are differences in their applicability. One can veer off a map, but one cannot so easily veer off a jungle, nor can one deny the universal directionality of a compass. These conceptual differences have significant implications for how the music sounds, as is evident in the recordings these individuals have released as bandleaders.

Communities function best when the need for consensus is balanced with recognition of differences; "commonality in multiplicity" on the one hand, and "individuality within the aggregate" on the other.[17] In an age when modern political thinkers call for transcendent "unpredictable ideologies,"[18] contemporary musicians continue their work opening alternative aesthetic spaces that are becoming ever more inclusive and sensitive to the needs of their communities.

Notes

[1] Sun Ra, Liner Notes, *Destination Unknown*, Sun Ra and His Omniverse Arkestra, Enja 7071, 1992, compact disc. The title is also taken from the film *Space is the Place*, directed by John Coney/performed by Sun Ra (1974; New York: Rhapsody Films, 2003), DVD.

[2] My background is in a variety of improvised music traditions and notated chamber music, while the quartet's (The Mivos Quartet) roots are in European concert music, specializing in cutting edge notated chamber works.
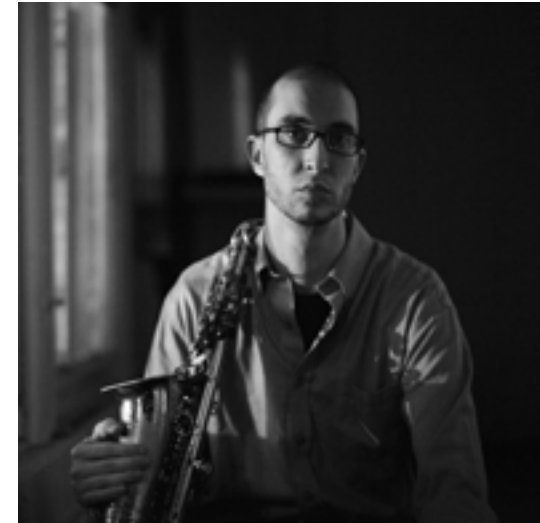
Space is the Place (cont.)

[3] Robert Morris "Compositional Spaces and Other Territories," *Perspectives Of New Music* 33 (Winter 1995): 329-330.

[4] Georgina Born, "On Musical Mediation, Ontology, Technology, and Creativity," *Twentieth-Century Music* 2, no. 1 (2005): 33.

[5] Michel Foucault, *History of Sexuality, vol. 2*, translated by Robert Hurley (New York: Random House, 1985), 25-27.

[6] Arnold Davidson, "Improvisation and Ethics," YouTube video, 45:24, November 13, 2008, posted by The Center for Jazz Studies, March 21, 2013, https://www.youtube.com/watch?v=2MYAMo_JZyA; William Parker, liner notes to *Mayor of Punkville* (Brooklyn: AUM Fidelity, 2000), CD.

[7] I refer here to "ontological metaphors" as defined in Lakoff and Johnson, *Metaphors We Live B*, (Chicago: University of Chicago Press, 1980), 25-32.

[8] Heather Douglas, "The Irreducible Complexity of Objectivity," *Synthese* 138 (2004): 464; Longino et al., "Introduction To The Pluralist Stance," in Scientific Pluralism, ed. Stephen H. Kellert, et al. (Minneapolis, MN: University of Minnesota Press, 2006): vii-xxvii.

[9] Anna Elisabetta Galeotti, *Tolerance as Recognition* (Cambridge: Cambridge University Press, 2002), 194-195.

[10] Wayne Shorter, interview by Laura Sullivan, *All Things Considered*, NPR, 2 February 2013.

[11] Morris, 330.

[12] Mark Johnson and Steve Larson, "Something In The Way She Moves: Metaphors of Musical Motion," *Metaphor and Symbol* 18 (2003): 79-80.

[13] Samuel Floyd, *The Power of Black Music* (New York: Oxford University Press, 1995), 228.

[14] To this point, I am reminded of a 2008 workshop I attended given by multi-instrumentalist, composer, and recent Pulitzer Prize inductee Henry Threadgill, where the maestro gave us several pages of his own difficult music, asked us to read it backwards, and when a few of us balked he laconically stated "You can read the music from left to right, and then you can just go home."

[15] Barry Blesser and Linda-Ruth Salter, *Spaces Speak, Are You Listening?: Experiencing Aural Architecture* (Cambridge, MA: MIT Press, 2006), 49.

[16] Stephen Lehman, "Liminality as a Framework for Composition: Rhythmic Thresholds, Spectral Harmonies, and Afrological Improvisation" (PhD diss., Columbia University, 2012).

[17] George E. Lewis extends Floyd's terminology in *A Power Stronger Than Itself: The AACM and American Experimental Music* (Chicago: University of Chicago Press, 2008), 511.

[18] Arthur Brooks, "A Conservative's Plea: Let's Work Together," TED Talk, https://www.ted.com/talks/arthur_brooks_a_conservative_s_plea_let_s_work_together, accessed May 2, 2016. I adopt this term appropriatively, from American Enterprise Institute's Arthur Brooks, although I do not share Brooks' open embrace of neo-liberal "free market" solutions to pressing global dilemmas such as chronic hunger.

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The Challenge of Comparing Improvisation Across Domains

Andrew Goldman & Marc Hannaford, Columbia University

In 1974, Bruno Nettl urged " . . . it is probably time to begin to rethink the idea of improvisation, to see whether it merits consideration as a single process, whether it has integrity as an idea separate from other, related ideas about creating of music, and whether all the things that we now call improvisation are indeed the same thing."[1] Today Nettl's questions flourish in a field of improvisation studies that not only addresses variation between musical practices, but also across a variety of domains with improvisatory aspects such as dance, theater, artificial intelligence, farming, organizational management, poetry, and many others. The journal *Critical Studies in Improvisation / Études critiques en improvisation*, the *Improvisation, Community, and Social Practice* organization, and the two-volume *Oxford Handbook of Critical Improvisation Studies* (Oxford University Press, forthcoming Summer 2016), edited by George Lewis and Benjamin Piekut, have been influential in this regard, and continue to advance a growing movement devoted to critical scholarship on improvisation.

It is in this climate that we formed the Comparing Domains of Improvisation Discussion Group in August 2015 at Columbia University. We use the term domain in order to consider accompanying theories and scholarship in addition to the practices themselves. Our goal is to provide a platform for improvisers and scholars of improvisation to explore commonalities and differences in both the practice and theorization of improvisation.[2]

Our respective interests in improvisation are both scholarly and personal. Goldman is a pianist, composer, and cognitive scientist whose postdoctoral work at Columbia University focuses on developing ways to integrate neuroscientific theories and experimental methods with the broader study of improvisation. This includes both theoretical work (i.e., how can this integration best be done) and experimental work comparing groups of musicians using electroencephalography (EEG). Hannaford, a graduate student in music theory at Columbia University, researches the analysis of musical improvisation, particularly in relation to subject- and community-formation, in conjunction with race, gender, sexuality, nationality, and class. He is also an improvising pianist and composer who performs regularly. Other members of the group include musicians, musicologists, dancers, choreographers, computer scientists, sociologists, a graphic novelist, and professional educators.

The goal of our group is to trace common threads through various improvisational practices in order to locate, describe, explain, and critique the phenomenon, and the scholarship surrounding it. The themes and practices discussed at our meetings have been diverse. Guiding topics have included the role of preparation in improvisation, listening as an improvised practice, gender, live coding, problems mapping commonalities across domains, and temporality. For our sixth meeting we presented our first invited speaker, Chris Stover (The New School), who delivered a paper, "Time, Territorialization, and Improvisational Spaces," that applied Deleuzian philosophy to the analysis of improvisation. Jaan Altosaar (Princeton and Columbia Universities), our second invited speaker, presented work on machine learning approaches to music generation and improvisation, in which computers can learn to generate and analyze music with varying degrees of human supervision through "training" on digital corpora of musical examples.[3]

Despite the apparent ubiquity of improvisation in different domains, and surface similarities between instances of the practice, finding meaningful theoretical commonalities has not been a trivial process. Here, we share some of these thoughts and challenges that we have encountered in the discussions, and reflect on how to advance this area of research.

One clear example of this difficulty arises in discussions of constraints, a concept which can readily be applied to improvisation in different domains. For example, a musician might be constrained by a chord progression or a dancer by a particular choreography. Constraints are sometimes used to quantify the degree of freedom of a performance. Building on this view, different performances can be placed on a continuum or spectrum depending on how many constraints there are. These concepts have frequently arisen in our discussions as potentially having explanatory power across domains. While we do not see this as implausible, it has also become clear that the similarity may be only skin deep.

Comparing domains of improvisation using the concept of constraints is problematic in at least two regards. First, theoretical terminology differs between practices owing to differences in the practices themselves. There are typically no chord progressions in dance performance

and no foot positions in musical performance. Even within music, there is immense variety between traditions, each with its own theoretical vocabulary, instruments, and practices. Noting that constraints exist is certainly important, but there is more work to be done given that specific constraints do not directly translate. Given these differences in formal descriptions of the practices, and differences in the practices themselves, the challenge is to identify commonalties beyond the relatively general observation that constraints exist.
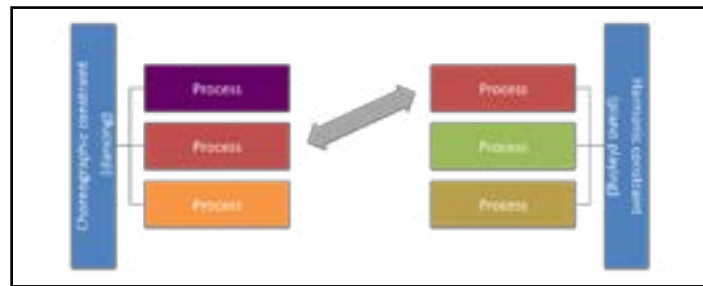

Fig. 1: Blue boxes represent domain-specific constraints. Other colors represent the many possible processes that improvisers could use to work with those constraints. The red boxes represent a process that is potentially shared across domains. In a comparison between piano playing and dancing, Hargreaves notion of motor-generated ideas, for example, could forge a link across domains.

Second, constraints are often a description of product, not process. In the case of music, one might say that an improvisation is constrained by a key on the basis of an analysis of the product after the performance, and determining that it is, for instance, in C Major. This constraint presumably affected something about the performer's process (since it resulted in characteristic structures that point to C Major), but describing the product alone potentially equivocates the many ways in which the constraint could have directed the performer's process, or the many processes that could have led to a similar product. These formalized, product-oriented descriptions of constraints are like a one-dimensional projection of many possible processes that could have led to a particular improvisation. In other words, there is another highly relevant dimension—a *depth* to constraints—that captures important variation in process. The many ways to improvise in C Major constitute a depth, but that depth variation would collapse if one only considers the product of an improvisation (i.e., the key). Understanding the variation in this depth dimension, we believe, has the potential to create more meaningful connections across domains. In other words, one can look at the processes that lead to what appear to be constrained products, and

those processes have common features across domains regardless of the specific nature of the product (e.g., musical notes, dance steps, etc.).

This question of depth is compatible with existing theoretical frameworks and empirical methods of cognitive science, which can model differences in thought processes, and demonstrate them in neuroscientific terms. Many existing neuroscientific studies compare improvisation with rehearsed performance, although they are generally less sensitive to differences between types of improvisation.[4] In contrast, consider Wendy Hargreaves' discussion of sources of idea generation. Hargreaves argues that musical improvisers can use strategy-, audiation-, and motor-based processes to generate ideas.[5] One could potentially think of other ways to create a taxonomy of improvisatory processes with a similar application of describing how the same product could potentially be produced by multiple processes. This could be the basis for future neuroscientific experimentation. The contribution of the existing neuroscientific work, and this continuation of it, is that differences in process described at a neurophysiological level are translatable across domains because neurophysiology itself is not bound to any specific practice's terminological framework. It thus has the potential to show connections between processes beyond descriptions of products.[6]

Another place where the idea of depth of constraints arose in our discussions was in our meeting on the topic of live coding. Defining live coding is difficult because of the heterogeneity of its practices, although Thor Magnusson suggests that writing algorithms in real time performance is a common feature.[7] As an improvisatory practice, live-coding certainly works with constraints in the sense that coding environments and programming languages constrain what is possible to create, and facilitate certain kinds of creation due to the affordances of the particular human-computer interface being used. That being said, the way constraints affect live-coding musicians has important differences compared with the way constraints affect acoustic instrumentalists, owing to the respective nature of these practices.

For the live-coder (if using only a computer keyboard and no electronic embodied interfaces), the relationship between a movement and the sonic result of that movement can be dissociated in time. That is, when the performer moves (by typing), the sonic result may not happen immediately. Also, similar movements (i.e., typing similar lines

of code) can result in very different sonic consequences. This is a complex issue, but the main idea for these purposes is that despite a surface similarity that both live-coding and acoustic instrumental practice are constrained, the performance processes can be markedly different, in whether constraints extend in time, and in how they affect performance decisions and dynamics. This type of difference has the potential to more meaningfully draw comparisons between domains of improvisation. That is, instead of considering the mere presence of constraints, concepts like temporality—the temporal link between movements and sonic results—can more effectively underscore important similarities and differences between improvisatory practices that have similar temporal issues.

Members of our group have also discussed constraint in terms of interpersonal relationships. Improvisers act and respond to one another in reciprocally dynamic ways. Unsurprisingly, improvisers are often acutely aware of this "dance of agency," to borrow Andrew Pickering's phrase.[8] Power structures, which are either predetermined or emerge during performance, modulate these relationships. While it is true that power constrains improvisation, the way in which power constrains provides better means for comparison across domains. Furthermore, power manifests itself differently in different domains of improvisation and not all of these manifestations are comparable.

Take, for example, the theorization of improvisation offered by Crossan et al., who compare improvisation in music and organizational management and state, "if organizations want to improvise [like jazz bands], they have to . . . rely on camaraderie, mutual trust, and respect."[9] Crossan et al. contrast rehearsals by jazz musicians, which in their view are "loose, unstructured, and experimental," with orchestra rehearsals, in which "all the musicians in all the sections follow the lead of the conductor who guides, develops, demands, and creates the mood of the piece." In their analysis, constraints imposed by a particularly rigid power structure prevent the orchestral musician from improvising, while the loosening of those constraints allow the jazz musicians greater freedom in rehearsal. They advocate for applying the jazz-band model to organizational management. One of their concluding remarks, however, reveals a lacuna in their theorization in regards to power. Crossan et al. reflect on the sustainability of improvisation in their model, asking "should [the group of improvisers] disband when the [improvisation] has run its

course?" and suggesting that, if improvisation persists, the organization must confront the possibility of "disruption, inconvenience, and occasional mistakes."[10] Their answer thus suggests that the primary function of improvisation in their model is to increase productivity and market share. Accordingly, when improvisation runs counter to these aims (which are presumably more profitable for some than others), it should be curbed. There is thus a limit to the agency their theorization of improvisation grants those below the management level: those improvisers are not able to invert or disrupt the power structure that frames their improvisations without working against it. This is not to say that improvisation cannot be used to critique power structures—it obviously can and often does—but that, when theorized in terms of "working together," one should also consider the function of power.

Nicholas Sorenson has called for a more nuanced examination of "the jazz band metaphor" in studies of improvisation in organizational management. Reinserting power into Crossan et al.'s theorization also potentially provides the means for better comparison of improvisation across domains.[11] Exploring "the jazz band metaphor" further, for example, one could investigate how power relationships within a jazz band modulate improvisations by its members. Power structure might be based on monetary exchange, representation, compositional material, and/or the overall aesthetic of the group—one of the musicians might pay the other musicians a fee, advertise the group in his or her name, be the sole or primary contributor of original material, and/or define, explicitly or implicitly and in broad or strict terms, the aesthetic of the group. Consider these comments from the great drummer Art Blakey in this regard: "I'm the leader, this is true … You learn to sit back there and make that man play… and try to make him build up. And a guy goes a certain distance, I make a roll. They know when I make that roll, they got a certain distance."[12] In this passage, Blakey describes the way he signals to a soloist that their solo is coming to an end (a press roll) and makes explicit the fact that, as the leader of the group (*Art Blakey* and the Jazz Messengers, emphasis added), he has the power to do so. These press rolls can be heard on many of Blakey's recordings and are, in part, artifacts of a particular power structure. This is not a critique of Blakey nor the jazz band as a space in which improvisation takes place, but merely to point out that it is not devoid of influential power structures.

Improvisation Across Domains (cont.)

Theorizing improvisation in terms of power provides one way of comparing improvisation in organizational management, as seen in Crossan et al.'s model, with jazz groups. Although Crossan et al.'s model is based on "the jazz band metaphor" it is fairly clear that power does not play an explicit role in either their analysis of jazz improvisation or the application of this metaphor to organizational management. Our analysis here suggests that a decentralized power structure influences both of these domains of improvisation: limited agency is granted to certain team members. Thus, the analysis of the mechanisms of power structures has explanatory power across domains, but identifying its mere presence as a constraint does not.

Art Blakey and the Jazz Messengers in performance
Photo by Dale Parent, courtesy of the Art Blakey Estate

In conclusion, we suggest that comparisons across domains of improvisation should take into account a depth dimension of constraints, that is, one that focuses on differences in the many ways constraints are used or applied. This shifts focus from products to process, and can more readily and meaningfully compare and contrast improvisatory practices across domains. In our experience, simply observing that improvisation in various domains is constrained, even accounting for spectrum-type models that describe improvisation as more or less constrained, does not provide the grounds for meaningful comparisons of improvisation. Rather, one should consider how improvisation is constrained, and how those constraints function. By understanding the ways various factors constrain improvisation, theorists can more effectively find points of overlap between domains.

We intend to continue the Comparing Domains of Improvisation Discussion Group throughout the 2016–17 academic year. Our goals are to establish a regular group

of contributors with diverse backgrounds, interests, and relationships to improvisation, to invite established scholars to present and contribute to the group's discussions, to deepen our ability to critically compare improvisation across domains, and to publish thoughts and arguments that arise out of our discussions.

Notes

[1] Bruno Nettl, "Thoughts on Improvisation: A Comparative Approach," *The Musical Quarterly* 60, no. 1 (1974): 2.

[2] We have been generously supported by both the Department of Music and the Presidential Scholars in Society and Neuroscience Program at Columbia University.

[3] https://jaan.io

[4] For a review of these studies, see Roger E. Beaty, "The Neuroscience of Musical Improvisation," *Neuroscience and Biobehavioral Reviews* 51 (2015): 108–117, doi: 10.1016/j.neubiorev.2015.01.004

[5] Wendy Hargreaves, "Generating Ideas in Jazz Improvisation: Where Theory Meets Practice," *International Journal of Music Education* 30 (2012): 354–367, doi: 10.1177/0255761412459164

[6] For instance, freestyle rap and instrumental improvisation may have different theoretical terminology on the surface, but can be compared in neuroscientific terms. See Siyuan Liu et al., "Neural Correlates of Lyrical Improvisation: An fMRI Study of Freestyle Rap," *Scientific Reports* 2 (2012): 1–8, doi: 10.1038/srep00834

[7] Thor Magnusson, "Herding Cats: Observing Live Coding in the Wild," *Computer Music Journal* 1, no. 38 (2014): 8–16, doi: 10.1162/COMJ_a_00216

[8] Andrew Pickering, *The Mangle of Practice: Time, Agency, and Science* (Chicago: University of Chicago Press, 2010), 21–22.

[9] Mary M. Crossan et al., "The Improvising Organisation: Where Planning Meets Opportunity," *Organisational Dynamics* 24, No. 4 (1996): 28–29, doi: 10.1016/S0090-2616(96)90011-X

[10] Ibid., 34

[11] Nicholas Sorensen, "The Metaphor of 'The Jazz Band': Ethical Isuses for Leadership," *Critical Studies in Improvisation* 9, no. 1 (2013), doi: 10.21083/csieci.v9i1.1903

[12] Ben Sidran, *Talking Jazz: An Oral History*. Expanded ed. (Petaluma, CA: Da Capo Press, 1995), 105.