

Conference Presentation and Annotated Bibliography

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Assessment #2

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How Will I Find My Voice? A Cellist's Journey in Improvisation

Abstract

This document accompanies a video presentation by Nicole Pinnell, of Salt Lake City, Utah (US). In the video, Pinnell speaks on her research project at the Academy of Music and Sound (UK), which she is doing in conjunction with lessons from American creative cellist Eugene Friesen (Berklee College of Music, Boston). Pinnell uses her own cello lessons as a platform to research how she, a highly trained classical cellist, will learn improvisation on the cello.

Pinnell divides the presentation into the following topics: Voice, Improvisation, Cello Innovation in Modern Times, Research, and Conclusions. A keynote with photos for musicians past and present, as well as musical examples from Friesen and Pinnell, are included in the presentation.

While Pinnell has engaged in improv since 2015, studies lacked joy, focus, and progression. Eventually, this motivated Pinnell to pursue private lessons with Friesen. What Pinnell reveals is that in several months of lessons, she chased the wrong aspect of improvisation: *the rigor*. As a classical musician, Pinnell has always thrived on challenge and achievement. While rigor in improvisation is required, Pinnell's inclination to neglect nurturing practices, such as meditation, silence, and positive thoughts, impeded her growth. Decades of deep-rooted bias are a strong influence, and rushes of feeling clouded thinking in lessons and practice. Friesen planted seeds of advocacy for "surrender" in practice at every lesson. Transformation began when Pinnell finally identified prejudice, deep in her mind, and changed her approach.

Cultivating the inner world, where subjective experiences are found, are the key to Pinnell's future success. Perhaps other classical musicians, similarly blinded by focus on the outer world, or the objective reality of accomplishment, may benefit from reflection on Pinnell's experience. For Pinnell, struggle transformed into peace when she allowed herself to work *the peace* in improvisation. Cultivating consciousness through the practice of silence, breathing, playing meditatively, creating stillness, engaging in joyful music-making, and suspending critical thinking, is a frontier in musical research that deserves further exploration.

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Outline with References for Keynote

I. Voice: Quest, Composers, and Composer Cellists of Classical Music

Quest.

Friesen: *Improvisation for Classical Musicians: Strategies for Creativity and Expression*.

Bonta: "Violoncello," *The New Grove Dictionary*.

Composers of Classical Music, in order of appearance, from *The New Grove*.

Wolff: "Bach, Johann Sebastian."

Kerman and Tyson: "Beethoven, Ludwig van."

Sadie et al: "Mozart, Wolfgang Amadeus."

Composer Cellists of Classical Music, in order of appearance, from *The New Grove*.

Speck: "Boccherini, Luigi."

Walden: "Duport, Jean-Louis."

Moskovitz: "Popper, David."

II. Improvisation: Baroque, Decline, State in Modern Times

Improvisation to Baroque and Decline.

Nettl: "Improvisation," from *The New Grove*.

State in Modern Times.

Sarath: *Improvisation, Creativity and Consciousness: Jazz as Integral Template for Music, Education, and Society*.

Sarath: "Improvisation and Meditation in the Academy: Parallel Ordeals, Insights, and Openings." *Journal of Philosophy of Education*.

III. Cello Innovation in Modern Times: Performing Cellists, Research, and Context

Performing cellists: pics from artist websites.

2Cellos: <https://2cellos.com>.

Apocolyptica: <https://apocolyptica.com>.

Friesen: <https://eugenefriesenmusic.com>.

Keating: <https://zoekeating.com>.

The Piano Guys: <https://thepianoguys.com>.

Selaocoe: <https://www.abelselaocoe.com>.

Existing Research.

Flatt: *A Contemporary Improvisational Methodology for the Cellist.*

Rigby: *From the Perspective of Critical Theories: Classically Trained Cellists Who Improvise.*

My context as an improviser.

Websites and books, in chronological order of how I experienced them.

<https://www.silkroad.org/gmw>.

<https://artistworks.com>.

<https://www.vermont-improv.com>.

Friesen: *Improvisation for Classical Musicians: Strategies for Creativity and Expression.*

<https://theimprovisorsguide.com>.

Contemporary Cello Etudes: Studies in Style and Technique.

IV. Research: Methodology, My Experience, Context of My Experience

Methodology.

Small: "How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology.*

Kara: *Research & Evaluation for Busy Students and Practitioners 2e: A Time-Saving Guide.*

Keynote.

Action Research Cycle.

My experience.

Deutsch: "Psychology of Music." *The New Grove Dictionary.*

Context of my experience.

Wilbur, Ken. 2001. *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality.*

V. Conclusions

Friesen: "Songs of Birds: Peace in Your Practice." eugenefriesenmusic.com.

Annotated Bibliography

1

Artistworks.com. 2021. Cello with Mike Block. [online] Available at: <<https://artistworks.com/cello-lessons-mike-block>> [Accessed 31 May 2021].

Artistworks is an online lesson program that features dozens of teachers on over twenty topics of study, with genres as diverse as hip-hop-scratch and world percussion. Lessons are available on a diverse array of instruments such as banjo, piano, violin, French horn and saxophone.

Cellist Mike Block, a self described multi-style cellist, with whom I have studied as a student in the Global Musician Workshop, and online at *Artistworks*, has built an impressive and comprehensive video lesson library. Students have the opportunity to watch unlimited lessons for a monthly fee. Play-alongs with sheet music and abundant backing tracks are provided. Classical and contemporary style lessons are offered, with levels including beginning, intermediate, and advanced.

2

Block, Mike. 2017. *Contemporary Cello Etudes: Studies in Style and Technique*. Boston: Berklee Press.

Contemporary Cello Etudes: Studies in Style and Technique, is a collection of twenty eight etudes for cello that have different applications of contemporary cello techniques. There is a generous range of skills covered, with pieces by thirteen different creative cellists. In the foreword by Yo-Yo Ma, Ma compares the book to David Popper's *High School of Cello Playing* (1883), remarking that as essential as Popper's etudes are to classical technique, this book may become for developing modern technique. Ma states: "I urge all cellists interested in contemporary styles to take a look, and to experience and enjoy the world of twenty-first century literacy." (p. iv)

Block's book includes access to audio recordings for each etude. The specific techniques covered are: chordal playing, modal improvisation, tapping, chopping; pizzicato techniques such as finger and percussive styles. Genres addressed are jazz, funk, Afro-Latin and Celtic. Some etudes incorporate elements of modal improvisation, polyrhythms and polyphony. Lastly, singing while playing, and electronic looping are covered.

The contributors are: Ashley Bathgate, Mike Block, Stephan Braun, Rufus Cappadocia, Rushad Eggleston, Erik Friedlander, Eugene Friesen, Natalie Haas, Giovanni Sollima, Mark Summer, Jacob Szekely, Matt Turner, and Jeffrey Zeigler. This book is essential for cellists who are seeking to incorporate contemporary styles in their playing.

3

Bonta, Stephen et al. 2001. "Violoncello," in *The New Grove Dictionary of Music and Musicians*. (London: Macmillan), Vol. 26, pp. 745-765.

"Violoncello" is a comprehensive overview of the history of the cello. The article begins with the instrument's origins before 1700, which are surrounded in obscurity. Initially the cello had to compete with the viola da gamba, which was played in the same range. Development of the cello, a centuries long topic, is summarized in both depth and breadth. Notable performers and

standard repertoire are the main highlight. Developing techniques, and the contexts in which the cello is used, are featured as well. The article concludes on music of the 20th century, including a section on jazz cello.

String instruments went through many transformations before they were gradually standardized into the shapes and sizes. In the early years of the 18th century, Stradivarius established a pattern of construction that has been adopted into the present day. However, Strad patterns are not the only patterns still valued. I, for example, play on a Montagnana pattern instrument, shorter and wider than a Strad (built by luthier Terry Borman in 1996).

Technique, style and taste also went through transformations in the history of the cello. Vibrato, for example, is rarely mentioned in 18th and 19th century treatises, yet vibrato is a fundamental aesthetic today. Left hand position and bowing techniques developed as well. The introduction of the “endpin,” or short stick that balances the cello on the floor, rather than on the knees, is thought to have led to an explosion of technical and tone possibility. Despite that, David Popper, one of the great virtuosos of all time, played with the cello snuggled in-between his legs, on his calves.

The real contribution of the endpin is that it finally brought women to the cello. Women, rare in the tradition of classical music but not absent, did not play the cello before the 20th century because playing the cello was considered immodest. The spike allowed women to play the cello within the social conventions of the day. As a result, May Mukle and Guilhermina Suggia became prominent virtuosos in the early 1900s.

The repertoire of the cello displays the instrument’s rich variety of tonal colors. It has a singular ability to express line through tone. In the past, while the instrument did not have the solo prominence of the violin, it still is marked by a treasured repertoire of standard works. Vivaldi, Bach, Haydn, Beethoven, Brahms, Popper, Dvorák, Elgar, Schumann, Brahms, Barber, Hindemith, Bartók, Kodály, and Shostakovich all wrote solo works for the cello that are still performed today.

The cello was used in jazz as early as 1916-17, in an album with Walter Kildare with the *Ciro Club Coon Orchestra*. However, this early appearance appears to be an anomaly. Cello reappeared with Harry Babasin (*Bopmatism*, 1947), Oscar Pettiford (*Cello Again*, 1952), and Calo Scott (*Vinnie Burke’s String Jazz Quartet*, 1957), and a number of cellists are engaging in it at present.

4

CREATIVE CELLO WORKSHOP 2020. 2021. CREATIVE CELLO WORKSHOP 2020. [online] Available at: <<https://www.vermont-improv.com>> [Accessed 4 June 2021].

Cellist Eugene Friesen offers integral studies to cellists around the world through annual retreats in Vermont. In the Creative Cello Workshop of 2020, held online due to social exclusion during the pandemic, musicians were offered the opportunity to blend improvisation with meditation. While the primary goal of the practice is “intuitive expression and communication,” benefits can include “mental clarity, insight, calm, and intuitive integration of information.” Trademarks of a contemplative practice are “not-knowing, an absence of expectation, deep listening, flexibility, and enhanced spontaneity.”

Since mindfulness has been treated as insignificant in many historical traditions, including that of Western Classical music, it is imperative to address this mindset in the changing demands of

our modern world. “Now, more than ever, artists are being called to respond with increasing flexibility and imagination.”

5

Deutsch, Diana, et al. 2001. “Psychology of Music,” in *The New Grove Dictionary of Music and Musicians*. London: Macmillan, Vol. 20, pp. 527-562.

The entry on the “Psychology of Music” in *The New Grove* is exciting because it covers such an expansive topic in a cohesive way. Of exceptional value to my conclusions is illumination on the topics of musical perception and cognition.

Discerning pitch, rhythm, and memory, are also presented in specific and insightful ways. The article looks at these topics with a psycho-acoustical approach and auditory analysis. Social psychology in individuals is another pertinent element. My experience, as well as analyses and conclusions from the action research cycle of my lessons, were profoundly impacted by this article, and more research is required.

For example, how does personality affect music making? Research has shown that certain personality traits and temperaments are essential characteristics to those who engage with professional success in music. This article states that “the principal characteristics of the musician’s personality are introversion, independence, sensitivity and anxiety, all of which are influenced by occupational factors.” (p. 559)

Research shows that individual musicians, by nature, exhibit strong tendencies towards introversion. The stamina to engage in years of isolated practice often emerges at a young age. As a musician continues to chase progression in skills, introversion increases. Isolation in youth is a common factor in the professional musician experience.

Musicians also cultivate a rich inner life, that is distinct and imaginative. As a whole they do not display all qualities of an introversion, such as shyness and seriousness. Intriguingly, “the internalization of sound permeates the body’s nervous system kinaesthetically, so that musicians can be said to think with their bodies.” (p. 559) I will be following up on this topic as well.

Musicians tend to be self-sufficient and independent. In the general population, independence typically goes hand-in-hand with extroversion. However, musicians exhibit strong tendencies of both introversion and independence. “Other phenomena associated with independence relate to aspect of the cognitive style of creative people who appear to prefer complexity and possess the ability to operate with thoughts, feelings and ideas that may be in conflict.” (p. 559)

During the past few months that I have been studying improv consistently for the first time, I have been in constant, inner conflict. I struggled to gain forward momentum with thoughts, feelings and ideas. While I judged myself harshly for that, perhaps this is an indication of my ability to think in a complex and deep way. This is a quality that I should view as an asset.

The topic of sensitivity and learning style takes a surprising turn. Rather than focus on the “feeling” qualities of musicians, the focus is on cognition. “Surprisingly, musicians may not be the quickest thinkers - their cognitive style requires them to ruminate at some length and depth, and to incubate solutions to problems.” The split-second decisions made in performance may have more to do with kinaesthetics, or body thinking. (p. 559)

This definitely supports my experience. I perceived myself as a slow learner, and was often frustrated. Actually, I was just learning a lot, all at once. In lessons in work, and in personal life,

I was often distracted, “ruminating” internally, and listening to thoughts instead of being present with others in the moment. Perhaps I was just “incubating” solutions. I expected “quick” integration, just like how my body responds instinctively and reflexively to a musical score. That type of “body thinking” will come with improv, in time.

Anxiety in musicians is considered such a common and documented topic, that the author considers it out of scope for the article. Instead, the reader is referred to explore the large body of research on their own. The entry also claims that anxiety, as long as it is not debilitating, can be a motivator. In this experience of lessons, anxiety did not motivate me. It only served to cloud my thinking.

Social psychologies are also present in musical relationships, such as those between a student and teacher, orchestra and conductor, and peers in chamber music. In this article, composers and performers get divided into different categories for analysis. Improvisers, however, do not receive their own distinct category. Therefore, it appears that this article is referring to a non-performing composer, which is frequent in classical music, but infrequent in improvised styles of the western tradition such as jazz, pop, rock and the many subsequent off-shoots, and world music.

For example, composers display many of the traits of performing musicians, such as introversion and cultivation of a rich inner world. The isolation of a composer is considered more extreme. However, composers tend to experience less anxiety, in part because they do not perform. Interestingly, the article also states that composers experience less anxiety because “by engaging in creative processes, people bring resolution to tensions within themselves and develop new integration.” (p. 560)

Primary and secondary teachers of music tend to fall in the category of extrovert. Private studio teachers tend to display the introverted, “musicianship-related profile.” Music makers in general seem to struggle with the “rough-and-tumble” of large classrooms. The resilience that is required for that boisterous dynamic is antithetical to a musician’s introversion and sensitivity level. The author suggests that music teachers may need to seek ways to be “less obviously different than the general population while still retaining some residue of the personality characteristics of the musician.” (p. 560)

The article’s section on neuropsychology addresses how the human nervous system processes the musical experience. The location of musical processing has been the topic of numerous studies on brain research. Findings show that music is a complex activity that does not use just one area of the brain, but rather, is integrated throughout the brain. While this is true for everyone in regards to processing music, it becomes profoundly more true for a person who makes the music.

This applied to my experience in this research project. When I play the cello in ways I understand, my body remembers. Mr. Friesen commented on this more than once. However, I was often clouded by negative thoughts. One strategy that I used to extricate myself from negative thoughts and judgement was to connect with the present by plugging my left nostril and breathing deeply. This helped to “turn off” my left brain, the “worrier,” and activate my right brain, which experiences the present.

Identifying and remembering a single pitch within a chord “requires the coordinated activity of many distinct areas within both cerebral hemispheres.” (p. 561) Musical training affects brain organization at a very deep level. For example, using the fingers of both hands in detail, builds more numerous fibers that connect the two halves of the brain.

A personal observation that I made from that information is that string players, who develop the fingers of the left hand at significantly higher levels than fingers of the right hand, appear to have a distinct predisposition for left brain qualities. Positive left brain qualities are organization and planning, and negative qualities are anxiety and worry. Isn't it common for musicians to generalize about the phenomenon of anxiety in the musician personality? Musicians who develop both hands more equally, such as guitarists, pianists, or pizzicato cellists like Eugene Friesen may exhibit more mental relaxation and a balanced approach to life due to this factor.

Music making also appears to improve plasticity, or flexibility and change in the brain. This fact also felt incredibly relevant to my experience over the last few months. Often I noticed that I was changing in noticeable ways that were "unrelated" to music. My lesson experience appeared to impacting my inner life profoundly, which also affected my relationships.

This article was so relevant to my experience in improvisation. More study on this topic are needed for me to understand and integrate what improv will mean to me.

6

Eugenefriesenmusic.com. 2021. "Songs of Birds: Peace in Your Practice." [online] Available at: <<https://eugenefriesenmusic.com>> [Accessed 31 May 2021].

Songs of Birds advocates for peace. The cultivation of peace, experienced individually in practice, has the power to extend peace in our hearts, families and communities. This essay, located on Friesen's website, is inspired by the legendary Catalonian cellist Pablo Casals. Casals strove and succeeded in spreading peace throughout the world during his life.

"Part meditation, this practice is the suspension of critical evaluation in favor of deep listening and acceptance, both of which are enhanced by inner stillness. Our stillness invites all we've studied to meld with all we are...and is the spring from which inspired performances flow."

Friesen explains the "whys" and "hows" of this type of practice. His advocacy for the "why" includes cultivating original interpretations. By implication, musical emulation, in scientific and systematic ways, is a worthy goal, but not an end goal. Perhaps this is overlooked in classical training. Another benefit is connection with the "Tao," or flow of the universe.

Success in this practice involves reverent, inner listening, regulating breath while one finds balance with the instrument, tuning with long, beautiful tones, and being aware of how the instrument, body, and air in the room vibrates sympathetically with your instrument's sound.

As this practice develops, Friesen explains that the "quality of presence with your instrument, along with a generally improved focus and sense of calm that carries into problem solving, relationships, your teaching, and sense of self" can develop. However, like most passionate musicians, the "why" is the music making itself. Friesen concludes that we must move to the "heart of your expression...a step through the veil that reveals your truest music."

7

Flatt, Ian Calder. 2018. *A Contemporary Improvisational Methodology for the Cellist*. A Doctoral Essay: University of Miami.

A Contemporary Improvisational Methodology for the Cellist is a doctoral essay written in partial fulfillment for the Doctor of Musical Arts at the University of Miami. It is a summary of Flatt's work with jazz pedagogue and master, pianist Vincent Maggio. The essay is broken into

five sections: background, intervallic terminology, mapping the cycle of fifths, chord-scale alternations from the Lydian chromatic concept, and conclusions.

Of particular interest to me, a classical cellist, is Flatt's discussion of "third-stream," an improvisational style separate from jazz, that classical players reportedly may gravitate to for improvisational discovery. This is to accommodate the fact that classical musicians have an aesthetic that is more attuned to the traditions of Western European music. (15-24).

Another highlight of this essay are the thoughtful diagrams of intervallic relationships on the cello fingerboard. This brings many insights to the frameworks of harmony that are possible on the instrument. The diagrams are useful for mental organization and clarification.

The dissertation is lacking in one regard. It lacks a "cellist" approach. According to Flatt, "the cello is not capable of playing wholly voiced pianistic or guitar-like chordal forms." (p. 113) As this statement is not in alignment with current practice on the cello, this conclusion weakens what is otherwise a thoughtful and articulate work. It is important, however, to note that this essay is one of the first bodies of work on improvisation on the cello. Therefore, as a whole, this work should be respected, and treated with great regard.

8

Friesen, Eugene with Friesen, Wendy. 2012. *Improvisation for Classical Musicians: Strategies for Creativity and Expression*. Boston, Berklee Press.

Improvisation for Classical Musicians, Strategies for Creativity and Expression, offers a variety for classical musicians who desire to improvise. Finding and utilizing a distinct, personal voice is essential to the creative mindset. Divided into 17 chapters, this book covers a variety of specifics to develop the essential skills of improvisation. A wide variety of topics is addressed, focusing on intuitive, authentic, emotional playing.

Friesen also devotes significant attention to mindfulness. Breath, being present, loving the instrument, being curious, quieting the evaluative mind, and ultimately surrendering, are all topics. "Beautiful, serene, and effortless-sounding surrender requires belief in your intuition, positive intensions, and consistent practice." (p. ix) In improvisation, "the sole criterion for the success of your improvisation is that it's yours." (p. 4)

A myriad of specific techniques are discussed. Initial exercises, then further ideas and encouragement, are provided for personal, self-driven exploration. Melody, rhythm, harmony, sound color and texture are all addressed in specific ways. Of great interest to most cellists should be ways to function as a chordal accompanist and rhythm player. To join the modern ensemble, the cello can't always function in a melodic role.

Melodic playing is enhanced with discussions on pacing, polyrhythm, modal exploration, and rootless melodic formulas. Rhythmic accompanying and hocketing (sharing the rhythm role) are explored. In understanding harmony, chords on the instrument take a strong role, both in block and arpeggiated presentations. V-I cadences are emphasized, as are 7th chords and a variety of chord types. Sound colors are enhanced with pentatonics, embellishments, and approach/neighbor tones.

Essential improv techniques, such as transcription and transposition, also take star roles. This is a remarkable book, integral to guiding classical musicians in their creative journeys.

9

Hackley School. 2021. Faculty Feature: Dr. Rigby. [online] Available at: <<https://www.hackleyschool.org/news-detail?pk=964575>> [Accessed 7 June 2021].

This a faculty profile on Dr. Lauren Rigby from the Hackley School. I was interested to learn if Dr. Rigby had become a practicing improviser. The information on the school's website, shared with the pronouns she/her/hers, proves strong evidence that Rigby has become an accomplished modern cellist. I was unable to find information on Ian Calder Flatt.

10

Kara, H., 2017. Research & Evaluation for Busy Students and Practitioners 2e: A Time-Saving Guide. Policy Press.

Demystifying methodology and writing is a quest for Kara. This book was designed for those new to research, like me. I found it transformational after reading article after article that was beyond my level of understanding and comprehension. However, in my opinion, the title may mislead others as to the gravity of its academic value. At 250 pages long, this book is a substantive offering, that still took a lot of investment to understand.

The book is organized by these topics: Introduction; Overview of research; Methodologies, approaches and theories; Topics and proposals; Managing your research or evaluation project; Background research Secondary data, Primary data; Data analysis; Writing for research and evaluation; Disseminating research and evaluation; and, Conclusions.

The figure I used to make my depiction of the action research cycle is figure 3.1 on p. 49.

11

Kerman, Joseph and Tyson, Alan. 2001. "Beethoven, Ludwig van," in: *The New Grove Dictionary of Music and Musicians* (London: Macmillan). Vol. 3, pp. 73-140.

Ludwig van Beethoven was an Austrian composer who lived from 1770-1827. He came from a family that had served as musicians in the Bonn court of Electoral Cologne since 1733. However, his father Johann, a tenor and music teacher in the court, was dismissed from his duties for alcoholism in 1789.

Beethoven's early musical training took place with his father, who was reportedly physically and emotionally abusive, and beatings in this period may have contributed to his Beethoven's early hearing loss. Beethoven's difficulties in childhood, and how that affected his personal life and compositional output, has been a topic of interest, speculation, and research. Beethoven's compositions exhibit a rich inner life and incredible imagination. To contemplate Beethoven's unusual personal life to his innovative work is thought-provoking.

Early in his studies in Bonn, Beethoven travelled to meet Mozart, and may have taken a few lessons from him. In 1792, Beethoven's family moved from Bonn to Vienna, to begin studies with famed composer Franz Joseph Haydn. After two years of study with Haydn, Beethoven continued his studies with Johann Schenk, Johann Georg Albrechtsberger and Antonio Salieri. Beethoven's early period was in a distinctly "Classic" style.

In early years in Vienna, Beethoven supported himself and his family as a pianist-improviser in the homes of wealthy aristocrats. Beethoven's middle compositional period is from this time. This middle period is often credited as nothing less than ushering in the Romantic era of music. The scale and content of Beethoven's productive output in this period is described as heroic.

Works from this period include Symphonies 3 through 6, the fourth Piano Concerto, the *Triple Concerto* for violin, cello and piano, *Fidelio*, and several of the cello sonatas, which Beethoven performed with Jean-Louis Duport.

Beethoven's works are categorized into a late period around 1812. There were many contributing factors to change at this point. Beethoven's continued hearing loss was one factor, as was his choice to focus much time and effort with his nephew Karl. Works in Beethoven's late period include *Wellington's Victory*, the *Hammerklavier* Sonata, other piano sonatas, the *Missa Solemnis* mass, and famed *Symphony No. 9*.

Beethoven's final years were marked by illness and difficulty, but admirably, he remained productive. His writing for string quartets in this period transformed texture, counterpoint, rhythm, and virtuosity in this genre. They are widely considered unparalleled in all the rest of history.

Beethoven died at the age of 57. His creative life is among the most productive and accomplished of any composer who has ever lived.

12

Moskowitz, Marc. 2001. "Popper, David," in *The New Grove Dictionary of Music and Musicians* (London: Macmillan). Vol. 20, pp. 127-128.

David Popper was a Czech cellist and composer who lived from 1843-1913. He studied music at the Prague Conservatory with Julius Goltermann (no relation, but amicable colleague, to cellist George Goltermann). Popper composed numerous works which are both virtuosic and melodic. Popper's opus 73, *40 Studies: High School of Cello Playing*, is considered standard and essential worldwide.

Popper was a court musician for much of his career, spending time as *Kammervirtuoso* in the Löwenburg court chapel. A member of Hellmesberger Quartet and first cellist of the Vienna court orchestra were other highlights of his remarkable career. Popper frequently performed as soloist and chamber musician with pianist Sophie Menter, who he married in 1872.

Popper was highly regarded as a pedagogue, and taught at the Budapest Conservatory from 1896-1913. His playing was reported to be masterful, effortless, and dazzling. From his creative output, one can see that Popper played the cello as no one had before.

In etudes from the *High School*, the cellist must engage in the following bow techniques: *sautillé*, *piqué*, *spiccato*, crossing across four strings, and slurred *staccati*. The left hand is frequently in thumb position, and is often in double-stops. Its virtuosic passages are in a variety of keys and scales —including, notably to the modern creative cellist, pentatonic scales.

In addition to etudes and character studies for the cello, Popper wrote four cello concerti, a string quartet, and other chamber and orchestral works. He is considered one of the greatest cellists of all time. He was the last virtuosic cellist who played with no endpin, which meant that Popper snuggled the cello between his legs on his calves.

13

Nettl, Bruno et al. 2001. "Improvisation," in *The New Grove Dictionary of Music and Musicians*. (London: Macmillan), Vol. 12, pp. 94-133.

Nettl, a founder of modern musicology, and associates define improvisation. In this entry of combined authors, it is noted that the practice of improvisation preceded composition as a skill in pre-historic music making. Improvisation is also a trademark of non-Western traditions, referred to in the article as ethnic cultures. Throughout history and until the present day, improvisation, rather than composition, has remained the organizing force and method of musical production. Spontaneous improvisation in the Western classical tradition is the article's main focus.

The article leads to the conclusion that globally, far more improvised music has been produced than composed music. Composers in the Western European classical tradition have developed unique notational practices, while elsewhere in the world, musicians have developed refined and variegated improvisational practices. Now in a more global society, these divisions are breaking down. Due to the temporary, evanescent quality of improvisation, it does not lend itself to historical research. Clearly, extemporizations of today can be recorded and preserved, but that has not been the case for most of human history.

This sentence, early on in the article, really stood out to me. "The term 'improvisation,' in suggesting a failure to plan ahead or making do with whatever means are available, may have negative implications." (p. 95) While the author continues with an explanation of why improvisation carries the ultimate prestige in the musics of the Middle East and North India, this as an opening statement caught me off guard. It seems to reveal that perhaps improvisation is marginalized in this, a venerated and esteemed encyclopedia of music.

My short experience in engaging in the discipline of improv for the past few months, has been one of the most rigorous experiences of my life. I have, in fact, prepared extensively. Extemporizations in the present have tremendous value as the whole point, in both practice and performance. For example, as one well-enamored with the grandiose *Rite of Spring* (Stravinsky), or *Symphony of a Thousand* (Mahler), the freshness and visceral power of improvisers in a world ensemble knocked me flat on the ground, the first time I heard this live.

There is an exhilaration and flow that seems almost unworldly in improvisation. Even as a little child, I remember my dad's performances (guitar and bass), and the energy his band members exhibited when they "took their solo." Ironically, I did not gravitate towards a personal interest in improv as a young musician. However, this is because I associated improvisation as exclusive to jazz, and at the time, did not relate to jazz, pop, and rock like my peers. As one gravitated to the music of Bach, Beethoven, and Berlioz, I did not think improvisation applied to me.

To improvise, for me at any rate, has introduced a body of practice that is so rigorous that it is infinite. Introducing improv with a negative statement seems to reflect bias. Does this speak to the depth in which improvisation is marginalized within the classical community? Or does it reveal a that a cheeky cellist is speaking out of line?

14

Rigby, Lauren Riley. 2010. *From the Perspective of Critical Theories: Classically Trained Cellists Who Improvise*. Phd Thesis: New York University.

From the Perspective of Critical Theories, Classically Trained Cellists Who Improvise, was written in 2010 at NYU. In this study, Rigby interviews five classically trained cellists who have become prominent improvisers in New York City. The thesis is divided into six broad topics: research objective, literature review, methodology, "the cellists," interview analyses, and lastly, a summary and implications for further study and practice.

This dissertation is an extensive, interesting, and thoughtful work. However, I did not specifically relate to it very well for two reasons. First, all of the improvising cellists studied are based in New York City. While that is relevant and practical since the dissertation is based on interview, Rigby makes no mention of recordings or accomplishments of improvising cellists worldwide. I found this ethnocentric view difficult to relate to.

Second, Rigby's literature review does not spend much time on improvisation itself, although it should be said that this is by design. The critical theories addressed are: ideology, hegemony, critical literacy, resistance and hegemony, cultural capital, ideological issues in University Music Departments, feminist theory, empowerment, identity, gendering in institutions, performativity, critical pedagogy, authenticity, and psychology. These are profound topics, but the exclusion of a deep look at improv, in a work 345 pages long, is noticeable.

The heart of the dissertation is the cellists, and it was interesting to read about these cellist interviews from a decade ago, and look up their websites, and hear what music they are making today. However, all five cellists departed from the classical world very early in their careers. A common theme is that their experience in the classical world alienated and disengaged them. Because of this, Rigby's analysis and conclusions are not as compelling classical musicians who have experienced success and satisfaction in that world.

Is improvisation only for those disenfranchised from the classical tradition? Studies in improv require meaningful challenges that will enhance the skill of any string player. Fingerboard mastery is achieved with an increased amount of technique routines such as chords, modes, and outside scales. My mastery of Bach, for example, has heightened, with my new agility in chords. Improv improves listening and perception. Finally, there is a simple joy in creating one's on music, and this cultivates a depth of connection to the instrument that results in more emotional expression, in both depth and breadth.

Later in the dissertation, Rigby addresses the lack of cello improviser-mentors at the college level. Rigby also reflects on how improvisation may be integrated in future university level curriculums. Rigby advocates for the need to integrate new ideas, within the structure of hegemony within the classical world. Progress and transformation are most likely to occur when universities align themselves with the communities of musicians who are successful in breaking out of classical paradigms.

In conclusion, Rigby states that a study of cellists who identify more strictly within the classical realm is needed to shed more light on the topic.

15

Sadie, Stanley et al. 2001. "Mozart , Wolfgang Amadeus," in *The New Grove Dictionary of Music and Musicians*. (London: Macmillan), Vol. 17, pp. 276-357.

Wolfgang Amadeus Mozart was born in Salzburg, where his father Leopold was a court violinist and composer. Mozart lived from 1756-1791 and demonstrated extraordinary abilities as a pianist, violinist and composer. His first public performance of his own works was in 1761 at age five. Concertizing with his sister, Mozart traveled Europe extensively, and performed at the court of Louis XV. Mozart's first publication of compositions was in 1763. He began composing symphonies and operas not long after. Mozart's childhood was marked by the love, respect and and nurturing presence of his father Leopold.

Mozart was constantly improvising and composing music. Throughout his entire life, Mozart delighted audiences with improvisatory displays, which reflected a playful and dynamic personality. At times, Mozart's behavior was considered out of bounds, which have caused some to research the possibility that Mozart had a neurological disorder, such as Tourette syndrome.

Struggling to manage and monetize his astonishing talent was a defining characteristic of Mozart's life. He had difficulty securing and keeping court positions, which were the standard means of sustenance at the time. Mozart performed frequently, sold compositions at high prices, and reportedly borrowed significant amounts of money to get by.

After courting soprano Aloysia Weber for a number of years, Mozart married her younger sister, singer Constanze Weber. Their relationship, characterized by devotion and intimacy, was challenged by the fact that while they had many children, only two survived past infancy. Mozart remained musically productive all the way to his early death. His productive output is astonishing.

Mozart's piano concerti were performed by himself with spectacular, dazzling, and improvised cadenzas. Mozart wrote numerous operas, concerti, sonatas, symphonic works, overtures, sacred music, cassations, divertimentos, serenades, and chamber music, such as string quartets and piano trios.

16

Sarath, Edward. 2013. *Improvisation, Creativity and Consciousness: Jazz as Integral Template for Music, Education, and Society*. Albany: Suny Press.

Improvisation, Creativity and Consciousness: Jazz as Integral Template for Music, Education, and Society, written by the living musician, composer and philosopher Edward Sarath, is a comprehensive and overarching work that may take musicians years of study and practice to understand and integrate. The book is divided into these categories: Creativity, Consciousness, and the Integral Vision; Jazz: an Integral Reading, and lastly, Change.

Sarath bases a portion of his work on the AQAL Framework of philosopher Ken Wilbur (defined more clearly in the Wilbur citation following this one). This is how Sarath articulates a basic AQAL table.

Interior Structures	Exterior Structures
UPPER LEFT: "I" Individual, subjective interior 1st person	UPPER RIGHT: "It" Individual, objective exterior 3rd person
LOWER LEFT: "We" Collective, inter-subjective interior (can also be exterior) 2nd person	LOWER RIGHT: "Its" Collective, interobjective exterior 3rd person

Sarath continues with detailed discussions and analyses of transformation, driven by both improvisation and meditation. This is a *"parts-to-whole"* approach of the human experience. All four quadrants of an AQAL table represents each part, and together, an integrated view of subjective reality is presented. Growth in one quadrant creates growth in another quadrant. The more diverse the epistemology, or ways of knowing that someone experiences life, the greater will be their growth overall.

For example, if one grows in the upper-left quadrant, in an individual, interior, subjective way, then that individual will grow in other quadrants. Consciousness based studies address this quadrant of the human experience, yet are not part of most Western curriculums. Similarly, if one engages in service to the community, intentional development in the lower right quadrant, that individual will they will grow in the other quadrants. Specific levels of awareness and perception are unique to all people. Synthesis occurs when different ways of "thinking" and "doing" integrate. Sarath acknowledges that there are significant challenges in evaluating qualitative indicators of consciousness based growth.

In the second part of the book, Sarath writes extensive essays on *Jazz and the Academy*, Invention, Interaction, and Individuation are important topics. Sarath delves into teaching jazz in formal ways, which he points out, many believe is an incomplete approach. A genre that thrived in nightclubs, pulsing with the raw energy of humans wanting to connect, is hardly the same environment as a sterile, fixed classroom, which our educational systems must adopt. Invention addresses innovation. Interaction talks about communication (personal and musical). Individuation dives into how musicians can develop a unique voice.

Change covers a scope that is both broad and specific. The "ideal music school of the future" is defined side by side with a conventional music school. Areas of study include creativity, musicianship, ensembles, private instruction, technology, and curriculum discourse. These topics are set within the context that the conventional music school has this specific artistic profile: "Interpretive Performance Specialist in European classical repertory." In contrast, the integral music school, or music school of the future, has a central artistic profile that is: "Contemporary Improviser-Composer-Performer whose work traverses diverse horizons."

Planet Earth takes a Solo concludes Sarath's book. Sarath begins this chapter with an intriguing metaphor of the state of modern times with the late tonal period of jazz great John Coltrane. Just as a musician must navigate the complex and rapid chord changes of Coltrane's tunes, we humans need to take a look at the profound impacts of weapons development, terrorism, poverty, disease, and famine. Sarath states that the many challenges facing life on this planet, affects the connectivity we humans have with each other. The connection between the state of consciousness of all humanity, on individual and collective levels, are profoundly impacted by the state of our planet. Sarath advocates powerfully for opening one's mind to the phenomenological data that each of our human brains continually feed us, and encourages us to apply this data to the people around us, and the world as a whole.

17

Sarath, Edward. 2015. "Improvisation and Meditation in the Academy: Parallel Ordeals, Insights, and Openings." *Journal of Philosophy of Education*, Vol. 49, No. 2, pp. 311-327.

This article, *Improvisation and Meditation in the Academy: Parallel Ordeals, Insights and openings*, is a candid and detailed reflection on events that transpired as Sarath began to introduce curriculum changes based on his work on connecting creativity and consciousness. Remarking that "coming to this field having already been engaged in another fringe discipline, jazz and improvised music," his work divided his colleagues. Sarath was met with confusion, resistance, excitement, and acceptance.

To explain briefly, in 1987, Sarath joined the faculty at the University of Michigan. He took to his new job with a three-part "mission," some of which was the agenda of the school, and some of which was his "own," which "I was probably not wise to mention in my job interview." Well-schooled in jazz studies, Sarath was assigned to establish a new program at an otherwise strongly classical school. He was encouraged to invite entry points for interested classical players into the new curriculum. Sarath states, however, that his unspoken agenda was to also introduce meditation and mindfulness into classrooms.

Ten years later, inspired by the *American Council of Learned Societies Contemplative Practice Fellowship Program* (ACLS), Sarath finally felt motivated to introduce the curriculum that he had been designing. Met with "curious silence," his first proposal passed by a strong margin. The next step was to pass the curriculum amongst the entire faculty, who comprise of distinguished, venerated musicians. This is when "all hell—or perhaps from another vantage point, all heaven—broke loose."

Questions, which Sarath describes as "entirely reasonable," developed into a dialogue that was to first "escalate in intensity," then develop into a "sustained attack." Periods where the students sat in silence was the the source of passionate and engaged conflict. Feedback included "cutting edge ideas at the forefront of educational thought," with "this would set the school back 50 years!"

It is clear that statements became personal, such as "one could accomplish the same thing (as meditation) with Prozac." The "heaven-sent" part of the conflict was the fact that this gave consciousness based ideas a lot of attention, and eventually, the passion of dialogue was integral to transformation.

Sarath goes into great detail on the epistemology and fruits of systematic studies in improvisation and consciousness. He offers a rich context of research in the noetic, or mystical sciences. Mind can affect matter, and Sarath shows how. Now that Sarath is seeing the fruits of a program established a few decades ago, he can address the paradigm of individual and collective growth within a tradition of consciousness, with even more certainty.

In conclusion, Sarath advocates for a "wholesale overhaul of our educational systems." He suggests that we should be centering our institutions on the cultivation of creativity and consciousness:

"Though it is obvious that scientific materialism categorically excludes serious consideration of the [above] kinds of consciousness-based societal and ecological interventions, it is also important to note that a contemplative worldview that remains ambivalent to these possibilities may reify, albeit unwillingly, the materialist backdrop, and also constrain potentially important realms of exploration...a contemplative studies movement that is more self-critical, grounded

in tradition, while also rich in contemporary application, and walks arm in arm with consciousness studies, has the capacity to play a leadership role in ushering in an educational paradigm that delivers this new vision of human potential to the world.”

18

Silkroad. 2021. Global Musician Workshop – Silkroad. [online] Available at: <<https://www.silkroad.org/gmw>> [Accessed 31 May 2021].

The Global Musician workshop was founded in 2015 by cellist Yo-Yo Ma with the Silk Road ensemble. The flagship goal was to gather the finest musicians in the world from a variety of traditions, to learn about music and each other. In the original call for musicians, <https://youtu.be/AcEe-oqQkTQ>, made by the world-famous cellist, Ma encouraged musicians to learn how to “own” their own voice by making music that was distinctly theirs. Cultivating empathy in oneself and others was another focus topic by Mr. Ma.

I attended this workshop in 2015 as a performing participant, and my teachers were: Mike Block (multi-style cellist), Sandeep Das (tabla virtuoso), and Kaoru Watanabe (ethnic flute). These are my performances.

with Mike Block: <https://youtu.be/LD-D4pMlfzQ>

with Sandeep Das: https://youtu.be/bz691I_0UHA

with Kaoru Watanabe: <https://youtu.be/dgNKJXD6iG0>

To say that this was a challenging experience is an understatement. To prepare for the event, I performed a solo recital of Zoltán Kodály, Bach and Claude Bolling. I was grossly unprepared, technically and emotionally, for a week of all aural learning with some of the finest musicians in the world. I relied on my most basic instincts to deliver the performances, which were one week after my first experience in aural learning.

In 2016 I attended as an auditor, not a performer. I brought the esraj, a 19 string Hindustani instrument. Many came from all over the world, particularly Eastern traditions. Banjoist Béla Fleck was the featured artist rather than Ma. The 2016 the curriculum expanded to include more contemporary music of the West, such as bluegrass and folk.

19

Small, M.L., 2011. “How to conduct a mixed methods study: Recent trends in a rapidly growing literature.” *Annual Review of Sociology*, volume 37: pp. 58-86

Mixed methods research addresses dichotomies between quantitative and qualitative data. It also speaks to the complex challenges that arise from first-person subjectivity in phenomenological fact-finding. This particular article focuses on mixed methods research published in journals, handbooks and presented at international conferences in the 21st century. It uses this information to clarify what defines mixed methods research, how to understand it, and how to conduct it.

The author states that a precise definition of mixed methods research is elusive. (p. 59) However, mixed methods research, at its simplest definition, combines qualitative and quantitative data, then uses analysis to come to common conclusions. Examples of specific data collection that can be combined include: “interview transcripts, survey responses, newspaper clippings, field notes, and administrative records.” (p. 60)

Mixed methods research is increasingly subject to elevated levels of design to triangulate data. Two approaches of design are “confirmation” and “complementarity.”(p. 63-64) Confirmation uses several approaches of data collection to corroborate a point of view. (p. 63)

Complementarity uses several approaches of data collection to “compensate for the weaknesses of the other.” (p. 64) Because there is a lot of conflict over these two approaches, it appears wise for a researcher to use both methods. In this way, an investigator adopts opposing strategies to answer research questions. (p. 66)

Another way to collect data is to utilize either sequential or concurrent designs. Sequential designs are iterative, and therefore involve frequent repetition. The author, Small, gives three contrasting examples. In one, researchers study gourmet food writing in the United States, in another, the well-being of adolescent immigrants in Israel, and in a third example, religion and family life in Nepal. What the studies have in common is that researchers collect data, then analyze it, repeatedly, over a significant period of time. (67-68)

Another thing that these studies had in common, was that the researchers used multiple strategies of data collection, which is the basis of concurrent design. However, Small presents this as a contrasting topic, and uses several new studies to shed more light on concurrent design. The research presented here is on activists in Brazil, the relationship of class sizes on teachers’ ability to serve, and modern innovation in food processing. It appears that what best defines a study is its focus: multiple ways of collecting data at one point in time, or the effects of long term, sequential analysis. (68-69)

Another trait of design in research is nesting. A nested design pulls multiple data points from a single source. It is particularly useful for in-depth interviews that are analyzed for conclusions on a topic. For example, in one Ohio study and adolescent relationships, the first set of data collected came from 1,000 children, while a second subset group of 100 was selected for more in-depth field study. In another study, 350 residents of East York were interviewed on how they sought information through technology and social networks, and of those, one quarter were selected for more in-depth interviews and open and semi-structured observation. Non-nested designs provide a comprehensive picture, yet sometimes don’t apply to certain research questions. (69-71)

Crossover analysis is an interesting approach because it attempts to put a quantitative perspective on qualitative data, or vice versa. Small’s discussion of narrative text analysis, or how to analyze text, became prominent in my research as I evaluated computer-generated lesson transcriptions. Finally, integrative analysis techniques, or the strategies of putting together meta-data, are addressed in Small’s article, which is a challenging but worthwhile read.

Integrative analysis was essential to this project, because that is a methodology that addresses how to analyze a single data source over and over again. Techniques of analysis emerge with the projects themselves, and Small cites several intriguing examples. Small concludes with a lengthy discussion on the ongoing concerns in mixed methods practice, such as commensurability and specializations.

In conclusion, the author, Mario Luis Small, changes tone. Prior to this point, the presentation was academic, clear, factual, and dry. I perceived little or no subjectivity. Here, however, Small uses the words “dissatisfaction,” “unhappy,” “infancy,” “ambiguities,” and “challenges.” To my view, this is a change from statement of facts to advocacy. It is a call for action. Upon reading the article again, with the realization that it had this as its conclusion, this was a powerful case for creative and instinctual approaches in research.

20

Speck, Christian and Sadie, Stanley. 2001. "Boccherini, Luigi." *The New Grove Dictionary of Music and Musicians*. London: Macmillan. Vol. 3, pp. 749-764.

Luigi Boccherini (1743-1805) was one of the earliest composers to write for string quintet, and was a prolific composer of chamber music. His teachers were cellists Francesco Vanucci and Giovanni Battista Costanzi. Boccherini's first appointment was at the Viennese imperial court theater.

In 1766 Boccherini went on tour with violinist Filippo Manfredi, and he launched his published creative output a year later. During the tour, Boccherini was offered and accepted a court post at composer and cellist at the court of the Infante Don Louis of Spain. Upon the Infante's death, Boccherini worked in the court of Frederick William of Prussia, who was also a cellist.

Boccherini persisted in sending compositions to the prince, and eventually, this led to his employment in as a chamber musician of the newly crowned King Frederick William in the court of Berlin. Boccherini's most prodigious creative output is from his time in this post. After the king's death, the cellist was able to make a living from a small pension and selling more compositions.

Boccherini composed 125 string quintets (nearly all featured two celli, although a few featured two violists), and there are 6 string quartets in which a guitar replaces the extra cello or viola, over 100 string quartets, more than 50 string trios, 11 cello concerti, 29 symphonies, in addition to other works. Regrettably, many of Boccherini's works were lost in 1936 in the Spanish Civil war. His work is considered of pivotal influence in the 18th century and beyond.

21

Theimprovisorguide.com. 2021. *The Improvisor's Guide to the Cello | The Best Method for Creative Cellists*. [online] Available at: <<https://theimprovisorguide.com>> [Accessed 31 May 2021].

The Improvisors Guide is the creation of multi-style cellist Jacob Szekely. This course offers a rich curriculum in modern cello through multiple types of engagement including core curriculum, seminars, community opportunities, practice routines in "the shed," going electric, and direct feedback from Szekely. Core elements include grooves, bass lines and riffs, since potential cellist roles in Rock, Blues, Jazz, Country, R&B, Soul, and Pop are all built from comfort in these skills. Pentatonics, modal scales, chromatics, singer-songwriter, ii-V-I strategies, pickups, and more are all addressed. Members sign up for one year, with full access to all lessons and materials.

22

Walden, Valeri. "Duport, Jean-Louis," in *The New Grove Dictionary of Music and Musicians*. (London: Macmillan), Vol. 7. pp. 726-727.

Jean-Louis Duport was a French composer who lived from 1749-1819. His cello teacher was his elder brother, who he quickly superseded. Jean-Louis played his Concert spirituel debut at age 19, but then the French Revolution interrupted his musical life.

In 1806 Duport took a post in the court of the exiled Charles IV. He later taught at the Paris Conservatory from 1813-1816. His method *Essai sur le doigté du violoncelle et sur la conduite de l'archet* ("Essay on the fingering of the violoncello and on the conduct of the bow"), is one of

our most comprehensive books on cello technique. Duport also wrote six cello concertos, and *Études pour Violoncelle*. He performed Beethoven's cello sonata with the composer himself, and is credited for Beethoven elevation of the cello as a solo instrument.

Duport played on a Stradivarius cello that (later acquired by Mstislav Rostropovich). A legendary story regarding this cello was that Napoleon asked to play the instrument, and damaged it. There are small marks in the instrument to this day. Napoleon reportedly joked "How the devil do you hold this thing, Monsieur Duport?" while mistreating this famed and venerated work of art.

23

Wilbur, Ken. 2001. *A Theory of Everything: An Integral Vision for Business, Politics, Science, and Spirituality*. Boulder: Shambhala.

A Theory of Everything: an Integral Vision for Business, Politics, Science and Spirituality, defines Wilbur's creative and spiritual approach for seeing the world in an integrated, comprehensive way. It invites readers to think holistically, and not simply regard empirical, scientific facts as the sole criteria for interpreting the world.

The book is divided into seven parts, and the All-Quadrant approach used in Sarath's book is introduced on page 49. An All Quadrant, All Levels table, is a way of defining human perceptions of reality. An AQAL table is not the only graphic thinking in the book. In fact, Wilbur maps out his thinking graphically many times and in many ways. This adds real dimension to a reader's understanding and perception of Wilbur's work.

Here, Wilbur ties in his conclusions with specific events, creative output, or spiritual thinkers in human history, such as the following figure.

AQAL Table of some representative theorists in each quadrant

Subjective Reality Objective Reality Individual Experience Collective Experience	Left Hand Paths Interpretive Hermeneutic Consciousness	Right Hand Paths Monological Empirical, positivistic Form
Individual	I Freud C. G. Jung Piaget Aurobindo Plotinus Gautama Buddha	It B. F. Skinner John Watson John Locke Empiricism Behaviorism Physics, biology, neurology
Collective	We Thomas Kuhn Wilhelm Dilthey Jean Gebser Max Weber Hans-Georg Gadamer	Its Systems Theory Talcott Parsons August Comte Karl Marx Gerhard Lenksi Ecological Web of Life

24

Wolff, Christoff et al. 2001. "Bach, Johann Sebastian," in *The New Grove Dictionary of Music and Musicians*. (London: Macmillan), Vol. 2, pp. 309-382.

German composer Johann Sebastian Bach, who lived from 1685-1750, comes from one of the most accomplished and venerated musical families in Western classical music. His father and uncles were all accomplished, respected and prolific. Little is known of the specifics of Bach's early musical life, but it is said that he had a beautiful voice, was taken with the organ, and that his many older brothers taught him music theory and harpsichord.

In a swift and tragic series of events, both of Bach's parents died. Bach was sent to live with an older brother, Christoph who was an organist and pupil of Johann Pachelbel. According to tradition, Christoph had a collection of Pachelbel's works in his possession, but he forbade his young brother Sebastian to copy them. However, the young J.S. Bach was obsessed with these works, and would frequently stay up all night to copy them in secret. Despite the turmoil of being an orphan, Bach was able to receive a substantive education, studying history, science, Lutheran theology, mathematics, classics, and singing. It is relevant to note, that Bach, one of the finest composers and improvisers who has ever lived, received a fine and broad education.

One of Bach's first appointments was in 1703, as a general musician and teacher in the court of Neukirche. This job was marked with difficulty, so Bach took a month leave of absence. He did not return for several years! In 1707 he was able to secure a post more suited to his skill set, as a composer and organist. Shortly thereafter Bach married his second cousin, Maria Barbara.

A year later, in 1708, Bach's dazzling organ playing helped him secure an even higher position in the court of Duke Wilhelm Ernst of Weimar. At his new post, Bach was esteemed, and his compositional output flourished. Because the court was Calvinist, his output was more secular at this time. Bach began the famed cello suites, and also wrote inventions, sinfonias, sonatas, partitas, and concerti, including the six Brandenburgs.

In 1720, Bach's wife and brother both died in quick succession. Later the next year, Bach remarried a vocalist and skilled musician, Anna Magdalena. These two had impressive collaboration. Anna Magdalena was esteemed, performed with Bach, and often served as his copyist. They had thirteen children together.

In 1721, Bach's benefactor Leopold married, and his new wife had no enthusiasm for Bach's music in her court. After a tepid year, Bach applied for a new post in Leipzig. However, Bach was not the first choice. While Bach eventually won the post, it was first offered to Georg Phillipp Telemann.

Bach spent many of his most productive years in Leipzig. For example, in his first years in Leipzig, Bach produced 200 cantatas, while also functioning as *Director musices* for the entire town of Leipzig. Bach supplemented his income with performances and compositions for weddings, funerals and official town celebrations. Other works from this period are the *St. Matthew* and *St. John* Passions, portions of the B minor mass, numerous motets and instrumental works.

Four of Bach's children became career composers.