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A lifetime learning melodies, rhythms & harmonies: the continuum of affective, behavioral, cognitive, physiological, and spiritual musical performance components in the lives of seniors

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BOSTON UNIVERSITY
COLLEGE OF FINE ARTS

Dissertation

**A LIFETIME LEARNING MELODIES, RHYTHMS & HARMONIES:
THE CONTINUUM OF AFFECTIVE, BEHAVIORAL, COGNITIVE,
PHYSIOLOGICAL, AND SPIRITUAL MUSICAL PERFORMANCE
COMPONENTS IN THE LIVES OF SENIORS**

by

CHRISTOPHER JACOB REISS

B.A., The George Washington University, 1977
M.A., New School for Social Research, 1979
Ph.D., Florida Institute of Technology, 1982
M.B.A., Long Island University, 2005
LL.M., University of Kent at Canterbury, 2006
Ed.D., University of Virginia, 2013
D.Litt., Drew University, 2016

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Doctor of Musical Arts

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Approved by

First Reader

Aaron Williamon, Ph.D.
Professor of Performance Science
Royal College of Music, Centre for Performance Science

Second Reader

Karin S. Hendricks, Ph.D.
Associate Director of the School of Music
Associate Professor of Music, Music Education

Third Reader

André de Quadros, Ed.D.
Professor of Music, Music Education

“Education is that which remains when one has forgotten everything he learned in school” (Einstein, 1956, p. 36).

By: The Anonymous Wit

Einstein, A. (1956). *Out of my later years*. Citadel Press.

DEDICATION

I would like to dedicate this work to my wonderfully accomplished daughter, Jessica Elizabeth Reiss. I still hold onto fond memories, raising you as a single parent on the Upper East Side of Manhattan, especially studying Greek and Roman history for your classes at The Hewitt School. Then there was your interesting take on developments in French history. As I recall, you focused on Cajun culture in America, preparing a few regional dishes for your class, including Louisiana alligator in a sauce piquante, and a New Orleans crawfish étouffée. Sailing out of Southampton, elsewhere on Long Island, and Nova Scotia, was always exhilarating, especially night sailing in high winds! Our subsequent years, together on the farm in Virginia, dealing with the crops, horses, livestock, timber, wildlife & wetland conservation operations, were more relaxing, albeit, challenging for New Yorkers. I was so pleased when you agreed to move back in with me, entering and graduating from the University of Virginia honors program. Your appreciation of music and fine arts have clearly persisted throughout your life, and you have made a career out of your love for exploring the world and new cultures. You made my life complete over what feels like a few lifetimes ago, and since then I have been lucky enough to enjoy new chapters that keep me moving in fascinating directions. Life has been great; thank you for the role you play.

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CHRISTOPHER JACOB REISS

Boston University College of Fine Arts, 2024

Major Professor: Aaron Williamon, Ph.D., Professor of Performance Science,
Royal College of Music

ABSTRACT

The purpose of this study is to understand affective, behavioral, cognitive, physiological, and spiritual, Musical Performance Components (MPCs) in the lifelong musical education of 20 nursing home residents who actively engaged in musical education, practice, performance, and appreciation since childhood and continued to do so in their nursing home community. The project began exploring Musical Performance Anxiety (MPA), and expanded the concept to MPCs, which may cluster to form basic states, moods, and dispositional-traits (e.g., individual differences in anxiety, sadness, anger, happiness, amorousness, or spirituality). The following question guided the research: How have the 20 nursing home residents who have actively engaged in making music since childhood, experienced, if at all, affective, behavioral, cognitive, physiological, and spiritual MPCs? Observations were utilized to describe the many qualities of the musical community. A flexible, open-ended, thematic interview approach with template analysis was used to uncover memories of possible experience with MPCs. Analysis revealed that residents experienced a broad spectrum of MPCs including

affective, behavioral, cognitive, physiological, and spiritual components throughout their lives making music, consistent with the literature review. Analysis also revealed that residents experienced a continuum of MPCs, ranging from brief but intense component states, to lower-level moods that tend to endure for longer periods of time, to dispositional-traits that can be lifelong, consistent with the continuum of affect theory detailed, herein. Their experiences sometimes negatively influenced well-being and commitment to engaging in music, but oftentimes they had beneficial impact. Some risks and benefits of MPCs from lifelong music making are detailed.

Keywords: affective, behavioral, cognitive, continuum of affect theory, dispositions, emotional, lifelong, moods, MPA, MPCs, musical performance anxiety, musical performance components, music making, physiological, spiritual, states, traits.

PREFACE

Synopsis of the Dissertation Topic and Structure

In this dissertation, I examine the musical experiences of 20 nursing home residents who have actively engaged in music since childhood. The goal is to determine if their experiences align with existing literature regarding the factors that influence musical performance. In the course of this exploration, a new term, Musical Performance Components (MPCs), is introduced to encompass their positive, negative and/or neutral affective, behavioral, cognitive, physiological, and spiritual reactions, both before, during, and after their participation in musical activities, such as musical education, practice, performance, and appreciation. This concept is distinct from the elements of music outlined by the National Association for Music Education (NAfME, 2021–2022), which include dynamics, form, harmony, melody, rhythm, style, texture, and timbre. As applied, herein, and consistent with the continuum of affect theory proposed by Boyle et al. (2014), the reactions may range from brief but intense component states, to lower-level moods that tend to endure for longer periods of time, to dispositional-traits that can be lifelong. Furthermore, musical performance components encompass more than just reactions related to musical performance anxiety (MPA); they also encompass a range of basic states, moods, and dispositional traits connected to musical activities and performance, such as individual differences in emotions like sadness, anger, happiness, amorousness, or spirituality, all of which can be expressed in affective, behavioral, cognitive, physiological, and spiritual terms.

The dissertation is structured into five parts. In the first part, Chapter One, I provide an introduction to the field of study. It explores Musical Performance Components (MPCs) in the lives of 20 nursing home residents who have been involved in musical education, appreciation, learning, and/or performance. This part primarily focuses on the affective component reactions experienced, which can have a positive, negative, or neutral influence on performance. Chapter One also furnishes background information by placing this research within the context of two growing fields of study, namely musical performance anxiety research, and the affective sciences. The chapter concludes by outlining the rationale, purpose, research question, and philosophical position.

The second part of the dissertation, explored in Chapter Two, delves into the existing literature, offering a historical perspective and reviewing the benefits and drawbacks of musical education, practice, performance, and appreciation. It establishes the theoretical construct of affective components and distinguishes their boundaries from related but distinct concepts. This part also features a review of research addressing the effects of music across different life stages, prevalence, as well as specific environmental and audience considerations. It proceeds with an enumeration of the affective, behavioral, cognitive, physiological, and spiritual components identified in the literature. The chapter concludes by presenting the continuum of affect theory, which predicts a range of reactions, from momentary, intense states to more prolonged lower-level moods and lifelong dispositional traits, followed by a summary of the implications of the literature review.

The third part of the dissertation, found in Chapter Three, restates the research question, and concentrates on the methods and procedures used in the study. This encompasses the qualitative research design, site and participant selection, and ethical considerations. Then I discuss positionality, data collection and analysis methods, thematic interview questions, recording procedures, template analysis procedures utilized, dependability, and trustworthiness.

In the fourth part, Chapter Four, I present my observations of the nursing home environments, and list the available spaces for music. Then I present the interview data, mostly in the participants' own words, under the following thematic headings: (a) Sets & Settings, including audiences; and (b) Experiences of MPCs, including the continuum of MPC reactions. The chapter is concluded with a frequency list for the thematic codes.

In the final chapter of the dissertation, the codes and themes derived from the data are analyzed for similarities and differences, aligned with the literature review, and organized thematically around the following: (a) Sets & Settings; and (b) Experiences of MPCs, including the affective, behavioral, cognitive, physiological, spiritual components, respectively. Additionally, the continuum of MPCs focused on in the data will be discussed in line with the literature review involving: (a) brief but intense states; (b) lower-level moods that tend to endure for longer periods of time; and (c) dispositional-traits that can be lifelong. Then I conclude the dissertation with a general discussion that identifies the principal contributions and limitations of the study, suggestions for potential future directions, and offer some final conclusions.

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CHAPTER ONE

Overview

In this part of the dissertation, I orient the reader to the area of study, exploring Musical Performance Components (MPCs) in the lives of 20 nursing home residents involved in musical education, appreciation, learning, and/or performance. The focus extends beyond anxiety reactions, which make up a vast majority of the research in this area and considers any affective component reactions that may be experienced as having a positive, negative, or neutral influence on performance. Then Chapter One provides some background, placing this research in the context of two growing fields of study (i.e., musical performance anxiety research, and the affective sciences). The chapter concludes with an outline of the rationale, purpose, research question, and philosophical position for this study.

During my years in Catholic parochial school and Jesuit preparatory boarding school, I personally encountered feelings of anxiety along with other emotional components, including irritability and sadness. Whenever I knew a musical performance was approaching, my negative moods tended to remain at a moderate level, but they would intensify just before the performance. These feelings would subside as the performance unfolded, occasionally spiking if I made a mistake and struggled to move past it smoothly. However, I persevered. The exhilaration, joy, and almost transcendental experience of making music seemed to outweigh the challenges of learning. As I transitioned into young adulthood, these intense and enduring negative experiences became less common, with positive emotions prevailing. By that time, I had shifted my

focus towards improvisational modern jazz, where the audience often didn't notice my mistakes.

Starting in 1975, with my first music therapy and art therapy internships, while taking graduate courses at The George Washington University, until now as a seasoned clinician, I have often found myself experiencing empathic distress when witnessing a client struggling with negative emotions. It seems that the affective centers of my brain have a long memory, and a client's visceral expressions trigger similar empathic feelings in me (LeDoux, 2000). In contrast, it is noteworthy that the vast majority of my clients, engaged in musical activities, tend to flourish in various ways. These activities encompass listening, discussing, composing, and performing music, either individually or in impromptu jam sessions, organized musical ensembles that involve voice, percussion, wind, and string instruments, or even during religious services. To fully comprehend the wealth of literature on musical performance and its relevance to the lives of my clients, as well as my own relationship with music, I find it imperative to delve into positive, negative, and neutral experiences in musical education, practice, performance, and appreciation.

Working with seniors who have actively engaged in learning, appreciating, and performing music since childhood and continue to do so in their nursing home community, has provided a valuable opportunity to delve into their stories regarding their experiences before, during, and after musical activities. Additionally, I have had the privilege to investigate the frequencies, durations, and intensities of these various reactions, encompassing their affective, behavioral, cognitive, physiological, and spiritual

reactions, which will henceforth be referred to as Musical Performance Components (MPCs).

According to the continuum of affect theory by Boyle et al. (2014) we can anticipate a range of reactions, from brief yet intense component states of affect, to lower-level affective moods that persist for longer periods, to dispositional-traits that can last a lifetime. The components of musical performance extend beyond anxiety-related reactions, encompassing a broad spectrum of basic states, moods, and dispositional traits that relate to musical performance issues. These may include agitation, amorousness, anger, apathy, attentiveness, contentment, depression, disgust, engrossment, enthusiasm, happiness, joyousness, passion, sadness, seductiveness, thoughtfulness, and transcendence. These multifaceted reactions can manifest in affective, behavioral, cognitive, physiological, or spiritual dimensions.

The last half-century has witnessed a growing body of research on the influence of affective reactions in the realms of musical education, practice, performance, and appreciation (Kenny, 2011). However, prior to delving into their impact on music, it is imperative to gain a comprehensive understanding of how emotions and related concepts have been defined and explored, both in the past and within the evolving field of affective science (Fox et al., 2018).

To provide a solid foundation for our exploration of these phenomena, this chapter will begin with a brief historical overview, and an examination of the definitions of key terms. Subsequently, I elucidate the rationale, purpose, and philosophical underpinnings of this study, culminating in the formulation of the research question.

Background

As are detailed with examples in the next chapter, musical instruments have been discovered that were used in diverse prehistoric cultures, shedding light on the uses of music before the dawn of written history (Burkholder et al., 2014; Keightley, 1983). Of course, the instruments alone do not provide insights into the role, if any, of Musical Performance Components (MPCs) during prehistoric times. As detailed below, MPCs, especially Musical Performance Anxiety (MPA), a form of MPCs, have been written about ever since, albeit, utilizing different terminology. Logically, it follows that MPCs did not emerge with written language, but probably existed long before it. Concrete evidence began to emerge as cultures developed literacy, notably with the cuneiform writing system created by the Sumerians at the end of the fourth millennium B.C.E. (Crawford, 1991; Walker, 1987). Scribes documented how composers and musicians coped with the pressure imposed by rulers and religious leaders during performances (Gauldin, 1983).

Plutarch (46 C.E.–119 C.E.) extensively documented the Ancient Greek and Roman periods, highlighting the presence of stress in music education, including musical performances before audiences and evaluations by tutors. These aspects played a pivotal role in music education and, more broadly, in the cultural progress of both societies (Plutarch, 1914–1967, 1927–2004). Even in contemporary times, music students continue to grapple with the stress of performance, a phenomenon that dates back to antiquity (Kenny, 2011). However, it wasn't until around half a century ago that MPA was formally addressed as an academic discipline (Wardle, 1970). Since then, research on

MPA has seen exponential growth (Kenny, 2011).

Numerous studies have explored the effects of MPA on music students of various ages (e.g., Kenny et al., 2013; Robson & Kenny, 2017), and many stories recount the experiences of great musicians who struggled with this phenomenon (e.g., Kenny, 2011; Kenny & Ackermann, 2013; Kenny et al., 2014). As MPA studies advanced, researchers identified various components of the MPA variable, often using different terms (Barbeau, 2011; Kenny, 2011). Barbeau (2011) noted that overlapping yet distinct terms have been used, such as anxiety, arousal, fear, performance anxiety, stage fright, and stress, without always making clear distinctions from MPA. Some researchers also delved into factors beyond anxiety, like depression, but included them within the MPA category (Kenny, 2011). This dissertation challenges such a broad classification.

McGrath et al. (2017) aptly noted, “It’s important to understand what music performance anxiety is—and isn’t” (p. 1). Various scholars maintain different views on the definition of MPA. For example, Salmon defined, “MPA as the experience of persisting, distressful apprehension about and/or actual impairment of, performance skills in a public context, to a degree unwarranted, given the individual’s aptitude, training, and level of preparation” (1990, p. 3). Alternatively, Osborne and Kenny (2005) suggested MPA becomes manifest when a music performer’s stress response exceeds normal arousal levels, resulting in negative consequences, while others found an optimal level of arousal is desirable to achieve excellence in musical performance (e.g., Henshaw & Collyer, 2022; Roland, 1994). Disagreements abound, and attempts have been made to refine the definition, some by incorporating the affective, behavioral, cognitive,

physiological, and spiritual components of MPA; yet achieving clear consensus concerning the construct remains elusive (Barbeau, 2011; Kenny, 2006, 2009, 2010).

In the past, other basic states, moods, and traits that possibly impact musical performance have not been clearly differentiated (e.g., individual differences in sadness, anger, happiness, amorousness, or spirituality). According to the Boyle et al. (2014) continuum of affect theory, these states are brief but intense affective reactions. Whereas, moods are of lower intensity and longer duration, while traits are relatively stable affective dispositions over years, or even a lifetime. Consensus on how to define and measure MPA remains obscure.

Osborne and Kenny (2005) conducted a comprehensive review of the evidence in support of 20 MPA inventories and found they all failed to meet minimal psychometric standards of the American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, failing with respect to adequate sample size, reliability, and validity (AERA, APA, & NCME, 1999). This critique was later supported by Kenny (2009 and 2011), indicating a persistent issue in the field.

Furthermore, these measures of MPA failed to distinguish between the various facets of MPA reactions. The continuum ranges from brief but intense states of MPA, to lower-level moods that tend to endure for longer periods of time, to dispositional-traits that can be lifelong (Boyle et al., 2014).

Rationale

For decades, it has been evident that professional musicians often contend with highly stressful work conditions on a daily basis (Sternbach, 1995). Shultz (1981) reported that 58% of musicians in the Vienna Symphony Orchestra experienced some level of stress and nervousness before performances, with a quarter of them indicating a high level of tension. Steptoe (2001) presented findings from the Fédération Internationale des Musiciens Survey, revealing that out of 1,639 surveyed musicians, a significant majority had experienced severe anxiety at times. Specifically, 46% reported shaking and trembling, 56% had muscle tension and sweaty hands, and 67% experienced rapid palpitations, all of which had a negative impact on the quality of their music.

However, as pointed out by Williamon (2004), it is crucial to recognize that factors influencing performance are not exclusively negative; some can enhance it. Williamon (2004) explored various aspects of research aimed at enhancing musical practice and excellence, drawing from cognitive science, kinesiology, medicine, physiology, and sports psychology. These aspects included the Alexander Technique, biofeedback and neurofeedback approaches, medications, memorization strategies, mental skills, coping methods, and physical exercise, among other methods tailored to either individual or ensemble performance.

For this dissertation, I initially sought to specify the range of various components from those that may enhance, to those that may hinder musical education, practice, performance, and appreciation. The focus was on gaining insights from nursing home residents engaged in making music, as this could shed light on the practical

consequences, of their experiences, whether positive, negative, or neutral. These cumulative experiences might have either detrimental influence on residents' well-being and commitment to engaging in music, advantageous influence, or a neutral influence. Barbeau (2017) found that the benefits of music-making by seniors can outweigh the negative impact of musical performance anxiety (MPA), among other forms of MPCs (e.g., Ascenso et al., 2022; Brownie et al., 2014; Li et al., 2015; Paolantonio et al., 2021; Seinfeld, 2013). Residents may provide valuable information on how their experience of musical performance contexts changed throughout their lives, shedding light on the differences between transient states associated with these contexts, longer-lasting moods, and potentially life-long dispositions, which could inform future research.

While studies on MPA, a subset of research on MPCs, have been extensive and have resulted in numerous reviews of their findings (e.g., Kenny, 2011; Lehrer, 1987; Salmon, 1990), the broader scope of components has not been studied as thoroughly. Some isolated studies have explored the relationship between musical performance and emotions such as sadness, anger, happiness, and spirituality (e.g., Fancourt et al., 2016; Gavin, 2012; Hays & Minichiello, 2005; Kenny & Ackermann, 2013; Reker et al., 2014), as will be enumerated in Chapter Two. However, because most MPA research has been cross-sectional, offering only captured snapshots in time, our understanding of the day-to-day effects, and the continuum of reactions, have been limited (Boyle et al., 2014).

I aim to identify new interventions and music education methods that may reduce negative and increase positive affective, behavioral, cognitive, physiological, and spiritual MPCs as identified in this study. Effective treatments could then be utilized by

community music-making facilitators to help nursing home residents better cope. Hopefully, residents could more effectively manage their situational spikes associated with MPCs, their longer-lasting, relatively low-intensity moods, and/or gain insights into their dispositional-traits.

Furthermore, this research has the potential to advance the field by providing knowledge that may overcome some of the limitations inherent in cross-sectional studies of MPA, while extending those insights to MPCs, in general. The results may also help focus future item development when creating and validating a new repeated measures digital diary research tool for MPCs. The practical applications of such a research tool with separate component measures of individual differences in anxiety, sadness, anger, happiness, amorousness, or spirituality, may be a significant and substantial advance to the music education research community, possibly leading to further insights about how to manage MPCs, but we are getting ahead of ourselves. For now, the focus remains with the 20 nursing home residents engaged in music making activities, and their life stories concerning experiences with musical education, practice, performance, and appreciation.

In an effort to precisely define the theoretical construct of MPCs, I attempted to explore and establish a consensus about the construct, including its affective, behavioral, cognitive, physiological, and spiritual components across time (Boyle et al., 2014). When applied to MPCs, the Boyle et al. (2014) continuum of affect theory would predict brief but intense states, lower-level moods that tend to endure for longer periods of time, and dispositional-traits that can be lifelong. The results of the template analysis were scrutinized against these predictions.

Purpose Statement

The purpose of this study was to understand the phenomena of Musical Performance Components (MPCs) in the lives of 20 New York nursing home residents who had actively engaged in musical education, practice, performance, and appreciation since childhood, and continued to engage in musical activities in their nursing home community. It was hoped this knowledge would lead to advances in music education, and community music facilitation methods.

Research Question

1. How have the 20 nursing home residents who have actively engaged in musical education, practice, performance, and appreciation since childhood, experienced, if at all, affective, behavioral, cognitive, physiological, and spiritual, Musical Performance Components (MPCs)?

Philosophical Perspective and Framework

In my pursuit of a comprehensive understanding of the subject matter, I endeavored to construct a holistic viewpoint drawing from my own musical experiences and insights gained from in-depth interviews concerning MPCs. It is essential to recognize that realities are highly individualized, manifold, and shaped by societal influences. This research was undertaken in a pragmatic vein, aligning with the philosophical principles put forth by Dewey (2008a, 2008b, 2008c). As elucidated further in the methodology section, the process of knowledge generation was characterized by dynamic interactions between the researcher and the informants. My research approach

was inductive, context-specific, and followed an emergent design, firmly rooted in a value-centric framework incorporating the principles of pragmatism.

Classical Pragmatism

Adhering to the tenets of classical pragmatism, I adopted a set of seven core principles as outlined by Johnson and Gray (2010):

1. Rejects dichotomous either-or thinking.
2. Believes knowledge comes from a person-environment interaction.
3. Considers knowledge as both constructed and resulting from empirical discovery.
4. Takes the ontological position of pluralism (i.e. reality is complex and multiple).
5. Holds the epistemological position that there are multiple routes to knowledge.
6. Views theories instrumentally (i.e., theories are not viewed as true or false but more or less as predicting, explaining, and influencing desired change).
7. Incorporates values directly into inquiry, endorsing equality, freedom, and democracy (p. 88).

Philosophy plays a pivotal role in all aspects of life, including research, education, and therapy, much like a conductor in an orchestra. Without an ongoing, systematic philosophical inquiry about basic beliefs and assumptions, all professions stand on an equivocal foundation, which also remains true for music education (Bowman & Frega, 2012). As Alperson (1991) urged, there is a need for a philosophy that can:

Provide a reasoned account of the goals, techniques, and values of music education, ... This would involve, among other things, an explanation of what there is to be learned about musical practice in its widest sense, how such things are learned, and how they might be taught (p. 218).

However, the development of such a philosophy has proven to be a formidable challenge. Various attempts have been made in this endeavor, with varying degrees of success, as observed in the works of many researchers (e.g., Coates, 1983; Elliott, 1995; Jorgensen, 1994, 2002; Langbein, 2004; Mantie & Tucker, 2012; McCarthy & Goble, 2002; Regelski, 2002, 2006, 2012; Reimer, 1989). According to Jorgensen (2002) some of these efforts contend that universal truths about music education are unachievable, while others limit the exploration for commonalities to the Western world. Nussbaum (1999) explained:

Philosophy asks for public deliberation instead of the usual contest of power. It asks us to choose the view that stands the test of argument, rather than the view that has the most prestigious backers, the view that gets all the details worked out coherently and clearly, rather than the view whose proponents shout the loudest (p. 300).

Dansereau and Dorfman (2018) called for the pluralistic blending of “theories, research questions, methods and so on ... that fall within and beyond traditional Western approaches [in a] systematic quest to answer relevant questions” (p. 4). The research question that guided this dissertation is detailed, as follows.

In summary of this chapter, the area of study has been identified (i.e., MPCs in the lives of 20 nursing home residents). The rationale, purpose, research question, and philosophical position guiding the study were also presented. The following chapter includes a detailed literature review and historical perspective.

CHAPTER TWO

Overview

In this part of the dissertation, I review the literature delving into the subject matter, providing a historical perspective, examining the benefits and drawbacks of musical education, practice, performance, and appreciation. As a theoretical construct, affective components are specified, and their boundaries distinguished from other concepts that are related but distinct. Included is a review of the research on the dynamic links between affective components, and musical activities (e.g., the impact of musical activities on affective components, and the impact of affective components on musical activities). Also included is a review of the research across different phases of life, along with prevalence, and specific environmental and audience considerations. This is followed by a tabulation of the affective, behavioral, cognitive, physiological, and spiritual components that surfaced in the literature. The chapter concludes with a presentation of the continuum of affect theory that predicts various reactions, ranging from brief but intense component states, to lower-level moods enduring for longer periods, to dispositional-traits that can be lifelong, followed by a summary of the literature review implications.

A Journey Through the History of Music Education and Performance

The enduring significance of musical activity throughout human history is evident through the survival of musical instruments from prehistoric cultures. For instance, the Hohle Fels flute, crafted from a griffon vulture's wing bone and dating back to between 40,000 and 42,000 B.C.E., serves as a remarkable artifact (Burkholder et al., 2014).

Similarly, a well-preserved bone flute from ancient China, dating to 8,000 B.C.E., still produces melodies today (Chang, 1986). Wall paintings from 5,000 to 6,000 B.C.E. in Turkey depict drummers and dancers, while various metal instruments from the Bronze Age, dating to 4,000 B.C.E., have been discovered (Burkholder et al., 2014). These artifacts offer compelling evidence of music's enduring presence in our history.

The written records of ancient history shed even more light on the importance of music education and performance. In Ancient Sumerian culture, cuneiform, the earliest known written language, was used to meticulously document the use of intervals in composing harmonies, and the practice of establishing tonal centers in their compositions (Gauldin, 1983). They even provided instructions for achieving precise tuning by simultaneously plucking two strings to “eliminating beats between harmonic components of the octave, fourth, and fifth” (Gauldin, 1983, p. 40).

The abundance of music and song in the Sumerian and Akkadian civilizations of Mesopotamia (2350 B.C.E.–2000 B.C.E.) were highlighted by Garcia-Ventura and López-Bertan (2021). These early civilizations dwelled in city-states with music and song in abundance (i.e., surrounding the current city of Baghdad, and the Persian Gulf, respectively). Analyzing texts classified as lullabies or work songs and other source materials, they explored the “role of music and sounds in the creation of an aural and acoustic atmosphere accompanying the kinetic and tactile rhythms of workers” (Garcia-Ventura & López-Bertan, 2021, p. 100).

A more comprehensive examination of musical performance in antiquity comes from Garcia-Ventura, Tavolieri, and Verderame (2018). They delved into the Ebla

archives of the third millennium B.C.E., where street performances blended with the cacophony of marketplace activities, worker songs, and musical instruments accompanying divine prayers and religious processions. Remarkably, the Sumerians actually "... classified their psalms and liturgical services chiefly by the names of the instruments employed in accompaniments" (Langdon, 1921, p. 181).

During the Zhou Dynasty (1122 B.C.E.–256 B.C.E.), music held a prominent place in Chinese education, alongside other disciplines known as the Six Arts (i.e., rites, music, archery, charioteering, calligraphy, and mathematics), emphasizing its importance in society (Cotterell, 2011; Gernet, 2002; Reiss, 2016). Confucius and his followers stressed the significance of these Six Arts (Sommer, 2013).

In Ancient Greece, musical skills, including singing, dancing, and playing instruments like the flute, lyre, or harp, held a prominent place in educational training, especially in Athens, as Aristophanes (446 B.C.E.–386 B.C.E.) emphasized (Aristophanes, 1983, 1998). Xenophon (430 B.C.E.–355 B.C.E.) further revealed that music and dance were integral to Spartan training, but with a different purpose – to aid in military maneuvers, where failure had dire consequences (Proietti, 1987). Subsequently, the influential Ancient Roman scholar and most notable polymath of his time, Marcus Terentius Varro (116 B.C.E.–27 B.C.E.), significantly shaped the course of education in the Roman Empire by incorporating musical theory as an organizing principle in one of his *Nine Books of Disciplines*, which detailed Roman liberal arts education (Larionova, 2020; Reiss, 2016; Varro, 1938).

During the Medieval and Modern Eras music continued to play a vital role in

society, influencing various aspects of life, including work, leisure, and spirituality (Burkholder et al., 2014). I present examples of this in the next section, and it will be of interest to determine if some of the historical functions of music in society played an important role in the lives of the nursing home residents in this study.

History of Music in Different Contexts

Although not prominent in research of the components of musical performance, spiritual music and devotional hymns played an important role in religious observances and rituals across various cultures (Brown, 2013). The *Tanakh*, also known as Hebrew Scripture, introduced music in Genesis 4:21, marking Yuval as the father of music. Songs of mourning, praise, and victory were prevalent throughout (Berlin et al., 2004; Kligman, 2013). The *Psalms*, a collection of sacred poems meant to be sung, were included at the beginning of the *Ketuvim*, the third and final section of the *Tanakh* (Berlin et al. 2004). The New Testament of the Holy Bible provided further evidence of music playing an important role, including hymns at the Last Supper: “When they had sung the hymn, they went out to the Mount of Olives” (*The New American Bible*, 1986/1988, Mathew 26:30).

Chant has remained central in Jewish liturgy, with blessings, psalms, and rabbinical texts chanted in the form of worship (Burkholder et al., 2014). Werner (1959) researched the links between Jewish and Christian music and concluded much of the music of the church was derived from the synagogue. Werner’s book on the subject, *The Sacred Bridge*, had preeminent status; however, based on Jeffery’s (1987) critique of the connection, it was not because of the quality of the research, but because of the fascination people had with the subject matter. Most scholars were less absolute, and fell

somewhere in the middle of the debate, for example, consistent with the position of Avenary (1978) expressed in his book, *Contacts Between Church and Synagogue Music*. The music of early Christians was documented by Egeriae, a Spanish Nun who while on a pilgrimage attended Jerusalem services. She wrote about the music and readings of Sacred Scripture in 400 C.E. (McKinnon, 1987).

Various divisions grew between Christians in the first millennium, with the division between Rome and Constantinople being the most notable; as such various dialects of chant developed (e.g. Ambrosian, Byzantine, Gregorian, Old Roman) (Burkholder et al., 2014). The *Oxyrhynchus Hymn*, the earliest manuscript of a Christian Greek hymn known to date, can be viewed at the Oxford University, Bodleian Libraries, Sackler—Papyrology Rooms. The finding provided evidence that educated Christian Greeks of the Third Century, studied, and utilized the musical notation developed by their Ancient Greek ancestors (Oxford University Bodleian Librarian at the Sackler—Papyrology Rooms, personal communication, July 12, 2003).

This relationship between the liberal arts foundations and theological study was institutionalized under Alcuin of York, and Charlemagne's (i.e., Charles the Great, 747 C.E.–814 C.E.) educational reforms during the eighth and ninth centuries (Gibbon, 1776–1788; Godman, 1983; Lamb, 1995). Prior to the eleventh century, under a system of monasteries and cathedral schools, education north of the Alps followed St. Augustine's doctrine of liberal arts in the service of Christendom (North, 1992; Reiss, 2016). It was during the time when unaccompanied Gregorian chant, a subset of Western plainchant, took hold in the Roman Catholic Church, mostly with sacred songs in Latin (Hiley, 1995,

2009). Eventually, religion took its place alongside law and medicine in the Medieval universities, achieved with the aid of liberal arts (North, 1992; Wagner, 1984).

Musical instruments were banned by rabbis in 70 C.E. following the destruction of the Temple and continued to be banned until the nineteenth century (Berlin et al., 2004). Similarly, some Christians were against music for religious expression or spiritual communion, in spite of commands to "... praise God with psalms, and hymns, and spiritual songs, and with instruments of music (e.g., Psalms 150:3–5; Colossians 3:16)" (Temperley, 1979, p. 4). Many Christians believed music was good for their spirit, while others valued the beauty of music as an offering to God, yet, still denying its value as a medium for sacred communication (Westermeyer, 2013).

According to Walsh et al. (2012), in addition to his scholastic writings, teachings and preaching, Thomas Aquinas, Saint and Doctor of the Roman Catholic Church, composed various hymns with the skills of the poets he revered from Antiquity, yet, at the same time they were dense with significant theological symbolism:

The grand climax of the Medieval Latin hymn was reached in the thirteenth century with the advent of the new religious orders of friars. The Dominican Thomas Aquinas (1225–1274) composed the Office for the recently instituted feast of Corpus Christi at the request of Pope Urban IV, ... Thomas encapsulated in beautifully controlled rhyming verses the doctrine of the Real Presence in the Eucharist, which he later expounded at greater length in his *Summa Theologiae* (3.75–77) (Walsh et al., 2012).

His music was referred to as wondrous little *summa theologica*, and many musicologists, such as Hélin (1949), have viewed Aquinas as an eminent composer of sacred hymns, whose exposition of doctrine was never sacrificed for lyricism. On the contrary, the latter was raised because the dogmatic contents of every stanza (Hélin, 1949). More importantly, Aquinas was able to reduce his theological teachings to strict verse, in general, and strict singing-verse, more precisely (Aquinas, 1985/1273; Reiss, 2021). Contemporary scholars have argued that St. Thomas' Eucharistic hymns, in particular, balance theological precision with poetical expression, achieving a precarious equilibrium of theological clarity and expressive flair (Nussman, 2017). His musical pieces illustrate the ideal blending of doctrinal expression and mystical fervor of which the author was the perfect exponent (Messenger, 2009).

Johann Sebastian Bach worked for the Church under what can be construed as very stressful conditions. For example, between 1723 and 1727, Bach composed a new cantata almost every week, as he was required to compose new musical material for Mass, while remaining within the strict guidelines of what was appropriate at the time (Bach, 1997; Terry, 1994). To have ventured outside the guidelines was considered sinful, and would have risked the wrath of the Church, if not excommunication (Greg Knowles, personal communication, March 8, 2018).

Music's role in different religions varied. For example, at the dawn of Islam following the first revelation to the prophet Mohammad in 610 C.E., an erudite artistic music became established and grew across the various Muslim territories; however, no one knows how the music sounded because it was handed down orally without a musical

score (Shiloah, 2013). Yet, the music was written about extensively, and became entangled with several other intellectual pursuits, while also stimulating a hostile backlash by religious leaders opposed to music as a form of worship, suggesting music was evil and a harmful influence (Shiloah, 2013).

Beck noted that music was always believed to be of divine origin in the Hindu religion, and often focused on the “musical features of tone, rhythm, and dance, along with textual support and interpretation in both Sanskrit and vernacular sources” (Beck, 2013, p.358). On the other hand, various religious traditions, such as early Rabbinic Judaism, some Calvinists, Sunni Islam, Theravada Buddhism, Quakers, and religious orders that observe vows of silence, either banned or approached music with great hesitation (Beck, 2013).

Thornton studied Shintō practices in Japan, and contrasted them with many other religious observances:

... including washing hands and mouth, clapping hands, bowing, swishing paper wands (gohei) and branches of sasaki (*Cleyera japonica*), parades, dancing, music, prayers, and offerings [and] ... generally dedicated to purification and renewal, bestowal of worldly benefits, oracles, and communication with the dead (Thornton, 2013, p. 396).

It should be noted that in addition to music for spiritual purposes, song and dance for social purposes played a substantial role in everyday Medieval life (Burkholder et al., 2014). As with the Ancient Sumerian and Akkadian civilizations of Mesopotamia (2350 B.C.E.–2000 B.C.E.), and the Ancient Greeks, including the civilizations surrounding the

Mediterranean that were influenced by their culture (Aristophanes, 1983, 1998; Garcia-Ventura & López-Bertan; 2021; Plutarch, 1914–1967, 1927–2004), music also functioned to facilitate both work and pleasure in Medieval life (Burkholder et al., 2014). For example,

Minstrels were an integral and prominent part of the late medieval French city. They contributed to a sense of civic identity by saluting the inauguration of the city council, sanctifying relics of saints in processions, and welcoming visiting nobility; they provided order to the day by making the opening and closing of town gates, making official proclamations, warning citizens of danger, and announcing weddings, and they provided entertainment at dances, bathhouses, and taverns (Burkholder et al., 2014, p. 72).

According to Burkholder et al. (2014) this troubadour tradition may have influences from Arabic songs familiar during the ninth century C.E. in the south of France. Reportedly, the tradition spread to the north of France before being adopted by the English, Germans, Italians, and Spanish (Burkholder et al., 2014). An argument can be made that the tradition of music serving societal purposes, from spiritual to work and pleasure, was handed down, in similar but distinct forms, through the Renaissance, and Modern Age, albeit, with ever changing musical tastes, styles, formats and venues (Burkholder et al., 2014).

To what extent Church music evolved, or not, during the last century can be debated. As described in W. E. B. Du Bois's (1953) book, *The Souls of Black Folk*, music was a critical aspect of life for Black Americans and a life-force in both their sacred, and

their secular lives. With respect to the former, strong disagreements arose concerning what was appropriate music in church worship, and practices once banned regarding instrumentation, performance styles, and genres, are now accepted in some church traditions (Kirk-Duggan, 2013).

On March 5, 1967, The Holy See issued instructions on some principal norms governing sacred music; the document was called the *Musica Sacram* (Bullivant, & Bullivant, 2017; Joncas & Joncas, 1997). It was the fruit of the tree that grew from Vatican II, and theoretically introduced sacred music to vernacular styles and instrumentations in order to increase participation:

... adapting sacred music for those regions which possess a musical tradition of their own in order to lead all the faithful to what *Sacrosanctum Concilium* had earlier called that fully conscious, and active participation in liturgical celebrations which is demanded by the very nature of the liturgy (Bullivant, & Bullivant, 2017, p. 1).

Similar to when Ralph Vaughn Williams and Sabine Baring Gould utilized English folk songs to build a repertoire of sacred English hymnals in the nineteenth century (Gould & Sheppard, 1889–1891; Wells, 2017), the liturgical music of the first African American priest, Clarence Rivers, was significantly influenced by the Black spiritual tradition when he created the American Mass Program in Cincinnati (Bullivant, & Bullivant, 2017).

Beck (2006) studied the musical sources of spiritual euphoria, social solidity, and inspiration in cultures around the world and across time. Beck (2006) also noted music is

the only art form named after divine heavenly entities (i.e., music is derived from the Muses, the daughters of Zeus and patron goddesses of intellectual and creative undertakings). In summary, musical practices have been documented from the prehistoric age to the contemporary age in practically every culture. Music can provide a path to spiritual growth and empowerment. Whether a gift of God, or a practice for attaining mental states conducive to transcendental enlightenment and psychological well-being, music is central to the development and sustenance of most spiritual and naturalistic belief systems (Beck, 2006; Zoughbi, 2022).

Defining Affective Reactions

Before addressing the positive, negative, or neutral role of different affective reactions on musical education, practice, performance, and appreciation it is important to understand how emotions and related concepts, have been defined and thought about, leading up to, and now within the emerging discipline of affective science (Fox et al., 2018). The history of the study of emotions has seen debates about the role of bodily feelings and cognition in emotional experiences. The philosopher and first American psychologist, William James (1884, 1890, 1894, 1902), published his theory of emotions, which was in direct opposition to the theory proposed by the Father of Psychology, Wilhelm Wundt (1874, 1904). Before taking aim, James (1884) characterized Wundt's position as a "natural way of thinking about these standard emotions that the mental perception of some fact excites the mental affection called the emotion, and that this latter state of mind gives rise to the bodily expression" (pp. 189–190). Thus, the psychological motivation is the source of emotion. Then James (1884) took exception to

this seemingly obvious point of view, stating:

... the *bodily changes follow* directly the *Perception* of the exciting fact, and that our feeling of the same changes as they occur IS the emotion ... Common sense says, we lose our fortune, are sorry, and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect, that the one mental state is not immediately induced by the other, that the bodily manifestation must first be interposed between, and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble because we are sorry, angry, or fearful as the case may be. Without the bodily states following on the perception the latter would be purely cognitive in form, pale, colorless, destitute of emotional warmth. We might then see the bear and judge it best to run, receive the insult and deem it right to strike, but we would not actually feel afraid or angry (James, 1884, p. 190).

In the face of criticism that James (1884) overstated the role of bodily feelings, while neglecting the cognitive components of emotion, Ratcliffe (2005) defended him:

Interpreting James's account of emotion in the light of his later philosophical writings, ... [Ratcliffe argued] James does not emphasize bodily feelings at the expense of cognition. Rather, his view is that bodily feelings are part of the structure of intentionality. In reconceptualizing the relationship between cognition and affect, James rejects a number of commonplace assumptions concerning the nature of our cognitive relationship with the world, assumptions that many of his

critics take for granted (Ratcliffe, 2005, p. 179).

Controversy concerning theories of emotion continued. The experimental psychologist and historian, Edwin G. Boring, reverted to a purely psychoanalytic assessment when he concluded, “Given clashing ego-involvement, reason diminishes and scientific battles are engaged ... when a man takes up a position, his pride prevents retraction” (Boring, 1954, pp. 612 and 639; 1955, p. 105).

Failure to reach resolution has been attributed to the role of passion in controversy, blinding the scientist to the opponent’s viewpoint, biasing reason, and pulling together colleagues intensifying their agreement in opposition to any foreign ideas (Boring, 1929). This propensity for “perseverative tendency in scientific thinking” (Boring, 1929, p. 113), was viewed by Henle (1973) as “perseverance...[in] problem solving” (Henle, 1973, p. 49). Henle (1973) felt that passion should be in the desire to do scientific work itself (i.e., in the process of critical thinking and seeking solutions to questions). Persevering to solve a problem should not involve heading blindly forward; rather, direction is to be found contained within each problem (Henle, 1973). Critical reasoning should remain central to debate, and winning an argument (Talbot, 2017). One decade short of a century and a half, the debate about emotion continues, albeit, within the broader context of affective science (Fox et al., 2018).

Historically, as noted by Juslin and Sloboda (2010), some confusion has resulted from researchers using some terms interchangeably, such as, “affect, emotion, feeling, and mood” (p. 9), or using a given term to mean more than one thing. Philosophical theoreticians have suggested being circumspect of established universal categories like

emotions or affects that can precisely demarcate all the instances to research when exploring the multiplicities of what is usually clustered under these terms (Altieri, 2003; Griffith, 1997; Wollheim, 1999). Over the past quarter of a century, studying the nature of emotion has morphed into a more complex affective science agenda (e.g., Ekman & Davidson, 1994; Fox et al., 2018; Haviland-Jones & Lewis, 1993). Many researchers cling to the traditional term of emotion, as often seen in book titles, yet these same researchers still acknowledge the dominance of affective science as the all-encompassing field of inquiry (e.g., Barrett et al., 2016; Coan & Allen, 2007, Juslin & Sloboda, 2010). The field has grown exponentially, and now includes more than research on emotions, and has expanded into other areas, including input from diverse disciplines, for example, autonomic psychophysiology, behavioral expression, cognitive components, personality, social sciences, cultural processes, psychopathology, and health (Davidson et al., 2009).

Oatley et al. (2006) advocated for more universal agreement in terminology, consistent with the growing nomenclature gaining some degree of consensus within affective science. To this end, Juslin and Sloboda (2010) proposed some operational definitions of key terms, which are relied upon in the following study. As noted in Table 1, affect is the most general term with all other affective components subsumed under it. Thus, the umbrella term of affect should suffice when there is not enough information to categorize phenomena more precisely (e.g., as a personality trait, an enduring mood, a brief but intense emotional state, or as a subcomponent thereof, such as, a subjective feeling, a physiological arousal, a behavioral expression, or a spiritual experience).

Table 1

Some Definitions of Key Terms (Adapted from Juslin & Sloboda, 2010, p.11)

Terms:	Definitions:
Affect	This is used as an umbrella term that covers all evaluative or 'valenced' (positive/negative) states (e.g., emotion, mood, preferences). The term denotes such phenomena in general. If that is not intended, a more precise term (e.g., mood, emotion, preference) is used instead.
Emotion	This term is used to refer to a quite brief but intense affective reaction or state that usually involves a number of sub-components e.g., subjective feeling, physiological arousal, expression, action tendency, and regulation, that are more or less 'synchronized'. Emotions focus on specific 'objects' and last minutes to a few hours (e.g., happiness, sadness).
Mood	This term is used to denote such affective states that are lower in intensity than emotional reactions or states, that do not have a clear 'object', and that are much longer lasting than emotions (i.e., several hours to days). Moods do not involve a synchronized response in components like expression and physiology (e.g., gloomy).
Feeling	This term is used to refer to the subjective experience of emotions or moods. Feeling is one component of an emotion that is typically measures via verbal self-report.
Arousal	This term is used to refer to physical activation of the autonomic nervous system. Physiological arousal is one of the components of an emotional response but could also occur in the absence of emotion (e.g., due to exercise). Arousal is often reflected in the 'feeling' component (i.e., the subjective experience).
Personality trait	This term is used to refer to relatively stable affective dispositions, which are characterized by low intensity and a behavioral impact which is usually the result of an interaction with situational factors (e.g. a neurotic personality).

In summary, the history of the study of emotions has seen debates about the role of bodily feelings and cognition in emotional experiences. William James argued that bodily changes precede and influence emotions, challenging the common belief that emotions drive bodily reactions (James, 1884). The debate on emotions has continued,

with some suggesting that passion and bias have hindered scientific progress (Boring, 1954). A consensus on terminology and definitions has yet to be reached in the field of affective science, which encompasses a broad range of disciplines (Fox et al., 2018). Although the term “emotion” is still widely used, affective science delves into various aspects beyond just emotions, including personality, cultural processes, psychopathology, and health (Davidson et al., 2009). Music has been a constant presence throughout human history, central to various functions of life, from education to spirituality. The study of emotions and affective reactions in the context of musical education, practice, performance, and appreciation is a complex and evolving field, shaped by centuries of philosophical and scientific debate. The historical journey through music and emotions reveals the enduring importance of both in shaping human experience and culture.

Benefits of Music Throughout the Lifespan Phases

Relying heavily upon the French thought of Laroque (1962), Peter Laslett (1989) introduced the stages or phases of civic life into British thinking about aging, delineating the First Age of socialization, the Second Age of work and child-rearing, the Third Age of independent post-work life, and the Fourth Age of dependent life in old age. Subsequent to this development, researchers tended to use age ranges to demarcate the four categories, rather than functional descriptors, though age does not always reflect degree of functioning (Laslett, 1994; Midwinter, 2005). This is especially problematic in the Fourth Age when a significant number of elderly individuals remain high functioning, while others move in and out of periods when they become dependent (e.g., during short term courses of treatment in rehabilitation facilities following various surgeries), and

some remain chronically dependent (Midwinter, 2005; Lehmberg & Fung, 2023a, 2023b). As such, research on ways to adjust music education approaches to the specific and changing needs of seniors moving between the Third & Fourth Ages of Life, seems pertinent (Leahy, 2024).

This complexity is further compounded by studies that span different age groups, making it challenging to neatly categorize research within specific age classifications. For instance, Fancourt and Finn (2019) conducted an extensive review of over 3,000 studies on the positive impact of arts, including music, on health and well-being across diverse age groups. Yap (2017) examined a range of studies, predominantly involving adults, however, some focused on pediatric patients, demonstrating improvements in physical, psychological, and social health associated with musical activities. Perkins et al. (2020) conducted a meta-ethnography of 46 qualitative studies, showing that participatory music-making activities enhance subjective well-being across various age groups. Similar results have been observed in community music groups open to different age groups (e.g., Damsgaard & Brinkmann, 2022; Nyashanu et al., 2021; Yang et al., 2021). These findings suggest that musical participation offers benefits across the lifespan, prompting separate reviews based on the four age classifications. Clearly, there appear to be benefits to musical participation at all ages, but what follows are separate reviews roughly based on the four age classifications.

First Age of Socialization

Active engagement with music can have a profoundly positive impact on the intellectual, social, and personal development of children and young people (Hallam,

2010). Chorus America (2009) supports these findings by highlighting the benefits of choral group participation for children and adults. For a detailed understanding of the advantages of music participation for children and young people, please refer to Table 2.

Table 2

Studies on Benefits of Music for Children & Young People

Source:	Age/Functional Range:	Benefits In:
Butzlaff (2000)	children	reading literacy
Catterall & Rauscher (2008)	primary school age	language, literacy, spatial
Chorus America (2009)	children in a chorus	academic, soc, success skills
Clift & Hancox (2001)	college choral society	spiritual, psy-soc well-being
Deli et al. (2006)	young children	gross motor control
Douglas & Willatts (1994)	children	reading literacy
Gardiner et al. (1996)	children	reading literacy
Goodrich (2022)	student musicians	leadership
Gordon (2013)	birth to fifth year	ear for music, audiation
Gromko (2005)	beginning readers	phonological skills
Haley (2001)	fourth graders	academics, math
Hallam (2010)	young people	personal, cognitive, social
Hallam & MacDonald (2016)	children	language, literacy
Hetland (2000)	children	spatial reasoning
Hodges & Gruhn (2012)	age brain develops	brain areas assoc with music
Jaschke et al. (2008)	primary school age	executive functions
Jentschke (2016)	age brain develops	akin to language acquisition
Kokotsaki & Hallam (2007, 2011)	music students	social, personal achievements
Long (2007)	children	brain development, reading
Magne et al. (2006)	children	neurophysio, pitch perception
Overy (2003)	children	reduce dyslexia
Rafferty (2003)	primary school age	math, temporal-spatial skills
Rauscher (2011)	primary school age	math, other academic skills
Schlaug et al. (2005)	children	phonology, brain, fine motor
Schön et al. (2004)	children	neurophysio, pitch perception
Anvari et al. (2002)	children	language reading abilities

According to Gordon (2013), the period from birth to a child's fifth year remains the critical period for developing an ear for understanding music, and an ability for audiation; thus, extensive, and early exposure to music is as crucial as exposure to speech is in the development of language. Research has shown that music education has a profound impact on linguistic processing at the cortical level, as demonstrated by studies by Magne et al. (2006) and Schön et al. (2004). In their work, Hodges and Gruhn (2012) observed that neurological structures are constantly evolving, with changes in morphology influenced by both genetic preprogramming and the effects of learning experiences. Their review of research focusing on brain development in musicians revealed significant changes in various brain regions, including the auditory cortex, corpus callosum, cerebellum, gray matter, white matter, sensorimotor cortex, and multimodal integration areas. These changes were particularly evident among individuals who had been exposed to music education (Hodges & Gruhn, 2012). In particular, Jentschke (2016), studied the relationship between music and language, uncovering extensive similarities:

Commonalities include a common evolutionary background, similar mechanisms in the acquisition of knowledge and rules in both domains, particularly the high significance of musical parameters during the first stages of language acquisition, and the wealth of similar processing mechanisms observed at different stages of music and language perception (Jentschke, 2016, p. 351).

Musical skills are related to the variance in the skills for the perception and production of subtle phonetic contrasts in a second language (Slevc & Miyake, 2006),

and in the reading abilities of children in their first language (Anvari et al., 2002). Active engagement with music can increase phonological skills (Gromko, 2005; Schlaug et al., 2005). Active engagement with music has also been related to improved reading literacy (e.g., Butzlaff, 2000; Douglas & Willatts, 1994; Gardiner et al., 1996; Long, 2007; Overy, 2003). Although the benefits of music engagement in language and literacy development are well-established, there is relatively less research exploring how it can positively impact behavior and support learning in other subjects, as noted by Hallam and MacDonald (2016). However, it is worth mentioning that the relationships between music education and arithmetic skills have been well documented (e.g., Haley, 2001; Rafferty, 2003; Rauscher, 2011).

Young children who participated in musical movement groups exhibited improvements in gross motor coordination compared to control groups (Deli et al., 2006). Similarly, Schlaug et al. (2005) identified enhanced fine motor control among individuals who learned to play a musical instrument compared to those who did not. However, the influence of music education extends beyond motor skills. Jaschke et al. (2008) established a substantial relationship between music education and executive functions in primary school children. Hetland (2000), after reviewing numerous studies, highlighted a significant and noteworthy relationship between music education and improvements in performance on spatial-temporal measures, which could partially explain the rise in general intelligence scores associated with music education, in addition to the improvements in language and reading literacy observed (Catterall & Rauscher, 2008). The positive impact of active student involvement in music on life skills development,

including attention, concentration, and discipline, was demonstrated by Kokotsaki and Hallam (2007, 2011). Goodrich (2022) delved into the effectiveness of peer mentoring in music education, showcasing its role in cultivating leadership skills. Clift and Hancox (2001) discovered that membership in a college choral society correlated with social, emotional, and spiritual benefits, whereas de Quadros (2019) described the beautiful, and transformational bonding, and camaraderie that occurs among students as they rehearse for musical performances.

Second Age of Work and Child-Rearing

In addition to the positive impact music engagement has on children and young people, detailed above in the section covering the first age, music can also have beneficial and lasting effects in the second age. There are many opportunities for community music involvement, which help develop musical skills in people of all ages and have proven to be psychologically beneficial in many instances and can continue into old age (Hallam & MacDonald, 2016; Park, 2015). Hendricks (2018) outlined the need for tolerant, understanding, and compassionate methods to engage diverse groups of people in music education and musical performance throughout life. These notions of compassionate teaching methods were further expanded upon by Leahy (2024), and Lehmberg and Fung (2023). Music teachers and facilitators can engage people at any age, not just during the formative school years (Hendricks, 2018).

As discussed earlier, Chorus America (2009) examined the advantages of choral group participation for both children and adults. In the case of adults, they found that when compared with the general public, "... choral singers report being significantly

more philanthropic, civic-minded, and supportive of the arts” (Chorus America, 2009, p. 8). Please consult Table 3 for more detail concerning the advantages of music participation for adults of work and child-rearing age.

Table 3

Studies on Benefits of Music for Work & Child-Rearing Age Adults

Source:	Age/Functional Range:	Benefits In:
Ascenso et al. (2017)	professional musicians	positive psych, PERMA
Chorus America (2009)	adults in a chorus	emotional IQ, civic minded
Clift, Hancox, Morrison et al. (2008)	adult choral singers	well-being, health
Clift, Hancox, Staricoff et al. (2008)	adult singers	life skills, cog, beh restraint
Croom (2015)	adults engaged in music	flourish, wellbeing, PERMA
DeNora (2000)	adults engaged in music	personal agency
Elbert et al. (1995)	adult string players	increased neuroplasticity
Fancourt et al. (2016)	adult drumming group	health, psy-soc resilience
Hallam & MacDonald (2016)	adult community group	health, well-being
MacDonald (2013)	adult music participation	health, well-being
Mantie (2012)	adult musicians	spiritual, psy-soc well-being
Park (2015)	adult musical activity	health, wellbeing, resilience
Pantev et al. (1998)	adult musicians	increased neuroplasticity
Pantev et al. (2001)	adult musicians	increased neuroplasticity
Pearce (2016)	adult musicians	health, social, well-being
Tervaniemi et al. (1999)	adult musicians	increased neuroplasticity
Tervaniemi et al. (2001)	adult musicians	increased neuroplasticity
Yap et al. (2017)	mostly adults	health

Mantie (2012) looked at the qualities of 275 adult community ensemble musicians, active in one of nine randomly selected bands and discovered a strong relationship with spiritual well-being, in addition to physical, emotional, and social well-being. Most were middle-aged:

... physically healthy, white, nonsmoker, nondrinker, churchgoer, well-educated, upper-middle class, married with children, active in the community, studied piano

and sung in a choir at some point, learned their instrument in school, enjoyed classical music, and chose to play in the band for both musical and social reasons (p. 21).

MacDonald (2013) conducted a review and found a strong connection between adult music participation, health, and well-being. DeNora (2000) has emphasized the connection between musical activity and personal agency. Clift, Hancox, Morrison et al. (2008) found adult choral singing related to well-being and health, while Clift, Hancox, Staricoff and Whitmore (2008) discovered life skills (e.g. attentiveness, behavioral self-restraint) were also related to singing in adults. Utilizing Seligman's (2011) model for defining well-being (i.e., PERMA, meaning Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment), Croom (2015) reviewed and documented an association between music practice and participation in adults, and the elements of well-being defined by Seligman. More recently, Ascenso et al. (2017) also used the PERMA model and found a high level of wellbeing in professional musicians.

At the physiological level, Elbert et al. (1995) documented increased neuroplasticity in musicians, for example, string players had an increase in the cortical representation of their left-hand fingers. Similarly, increased representation in the auditory cortex was found in musicians, as were timbre-specific representations (Pantev et al., 1998; Pantev et al., 2001). Additionally, functional specializations of human auditory cortex for the processing of phonetic and musical sounds were found in musicians, as were superior formation of cortical memory traces for melodic patterns (Tervaniemi et al., 1999; Tervaniemi et al., 2001).

Third Age of Independent Post-Work Life

Originally, this period of life was viewed as the retirement period when individuals find meaning in life through volunteer and more leisure activities including, but not limited to music making; yet the distinction between pre- and post-work life is not absolute (Laslett, 1989). Some people are motivated to only partially retire, or decide to return to work after several years of retirement. Lee et al. (2016) conducted interviews with 64 older adults in three community singing groups to determine their motivations and their thematic analysis identified eight factors including:

- (1) the importance of singing in my life;
- (2) enormous pleasure of singing with little pressure;
- (3) challenge and achievement;
- (4) spiritual and uplifting emotions;
- (5) strength in overcoming my age, disease, and hardship;
- (6) good leadership;
- (7) fellowship with others; and
- (8) purpose and meaning of group singing (Lee et al., 2016, p. 191).

Similarly, Southcott and Li (2018) found five themes among older citizens in China taking singing lessons: “Emotional wellbeing, physical wellbeing, mental wellbeing and ‘learning new things’, musical preferences, and sharing music” (Southcott & Li, 2018, p. 283). Making music was not always necessary for improving the well-being of older people, given listening to music with regular concert attendance, successfully reduced

anxiety and worries, while increasing awe, gratitude, happiness, inspiration, and relaxation (Costa et al., 2018a, 2018b).

G. D. Cohen et al. (2006) investigated the possible benefits of involvement in a community choir for older adults that was professionally organized compared with a control group involved in their usual activities. Significant reductions in loneliness, health issues, visits to the doctor, and amounts of medication used, were found in the experimental group, as were increases in general morale and overall activity, compared with the control group at the end of 1 year, and at a two-year follow-up (Cohen, G. D. et al., 2006, 2007). Dabback and Smith (2012) reviewed the research on music activities of seniors and found strong evidence that music education and musical performance provides consequential engagement for senior citizens, while providing biological, social, and psychological benefits.

After conducting a review of the literature, Hays et al. (2002) summarized music's capacity to facilitate health and well-being in various areas of older peoples' lives, including:

... recreational, educational, social, emotional, therapeutic, and spiritual. The importance and relevance of music depends on the life needs and interests of the individual and the social group within which he/she lives. It is now widely recognized that music for many older people is crucial in supporting a sense of well-being (Hays et al., 2002, p. 165).

Table 4*Studies on Benefits of Music for Older Individuals*

Source:	Age/Functional Range:	Benefits In:
Abrahan et al. (2019)	older adults	memory tasks
Cohen, A. et al. (2002)	seniors 65 & older	music importance in life
Cohen, G. D. et al. (2006)	older adults 65+	physical, social & mental
Cohen, G. D. et al. (2007)	older adults	physical, social & mental
Corvo et al. (2020)	older people	wellbeing & health
Costa & Ockelford (2019)	older people	happy, calm, inspired, awe
Creech et al. (2013)	older adults	health & well-being
Creech et al. (2014)	3rd & 4th age	well-being
Dabback & Smith (2012)	senior citizens	social, biology, psychology
Daykin et al. (2018)	older people	well-being
Dingle et al. (2023)	older adults	phys-cog-psy-soc wellbeing
Galinha et al. (2021)	older adults	physical & mental health
Galinha et al. (2022)	older adults	subjective, social wellbeing
Hallam & Creech (2016)	3rd & 4th age	health & well-being
Hays (2005)	later life	wellbeing
Hays et al. (2002)	aging	well-being
Hays & Minichiello (2005)	older people	cog-psy-soc & spiritual
Hillmann (2002)	older, mean age 63	wellbeing & quality of life
Joseph & Southcott (2018)	older people	well-being
Lally (2009)	seniors	well-being
Lamont et al. (2018)	later life	phys & psy-soc wellbeing
Laukka (2006)	elderly age 65–75	well-being
Lee et al. (2016)	older, age 32–95	spiritual & emotional lift
Livesey et al. (2012)	older choral singers	wellbeing
McLean et al. (2011)	older people	well-being & mental health
Perkins & Williamon (2014)	older adulthood	well-being
Skingley et al. (2016)	older people	well-being
Southcott (2009)	aging	happy positive aging
Southcott & Li (2018)	retirees	phys & psy-soc wellbeing
Southcott & Nethsinghe (2019)	senior	resilient
Tymoszuk, Perkins, et al. (2020)	older	reduced loneliness
Tymoszuk, Perkins, Spiro et al. (2020)	older	well-being
Varvarigou et al. (2013)	older learners	music skill, soc engaged
Varvarigou et al. (2012)	older people	cog, psy-social & physical
Zanini & Leao (2006)	elderly	confidence & fulfillment
Zimprich & Wolf (2016)	old age	memories

As mentioned in the opening to the section on the benefits of music across lifespan phases, some studies utilize levels of functioning to distinguish one phase from another, others use age spans, while some just refer to seniors, elderly people, or older adults when conducting research, without specifying whether the participants were in the Third or Fourth Age (Laslett, 1994; Midwinter, 2005). As such, Table 4 may include some overlap in these last two phases of civic life. Note, the preponderance of the studies documents the impact of music activities on overall well-being.

Southcott and Nethsinghe (2019) focused on the resilience acquired by seniors engaged in musical activities, whereas Zanini and Leao (2006) identified the confidence and inner fulfillment that were acquired. Dingle et al. (2023), looked at 63 studies involving 6,975 participants and their results cut across demographics and found reduced pain, increased social connections, improved mood, cognitive health, better posture, increased physical activity and overall well-being. Tymoszuk, Perkins et al. (2020) found the odds of loneliness were negatively related to engagement with receptive arts activities, both cross-sectionally and longitudinally. The relationship was stronger for activities more conducive to human interaction (e.g., walking around a gallery) than not (e.g., sitting in a theatre). Then Tymoszuk, Perkins, Spiro et al. (2020) found that while short term engagement with receptive arts activities did not significantly contribute to well-being in older adults, repeated or sustained engagement was significantly related to experienced, evaluative, and eudaimonic well-being.

Creech et al. (2014), and Hallam and Creech (2016) looked at the positive impact of music-making activity on the quality of life and overall well-being in people of the

third age, and also discovered it carried on into the fourth age, as will be more clearly addressed below. The next section will focus on studies concerning the benefits of music with older individuals who may be fragile, frail, or living in a facility such as a nursing home or other assisted living arrangement.

Fourth Age of Dependent Life in Old Age

As noted at the outset concerning lifespan phases, a significant number of older people function well without outside assistance, while others are more dependent and in greater need, often more so in later life (Midwinter, 2005). Table 5 outlines several studies that have looked at the benefits of music in these situations.

Table 5

Studies on Benefits of Music for Individuals in Nursing Homes or Assisted Living

Source:	Age/Functional Range:	Benefits In:
Biasutti & Mangiacotti (2021)	age 62–95	reduced depression
Brownie et al. (2014)	long-term aged care	psychological adjustment
Bugos et al. (2007)	age 60–85	executive function, memory
Costa et al. (2018a)	older care home	reduced pain, anxiety, depress
Costa et al. (2018b)	elder residential care	reduced anxiety & depression
Ing-Randolph (2015)	older with dementia	reduced dementia/anxiety
Li et al. (2015)	older cognitively impaired	improved cognitive function
Paolantonio et al. (2020)	nursing home	health & well-being
Paolantonio et al. (2021)	nursing home	psychosocial well-being
Särkämö et al. (2014)	dementia & gerontology	cognitive, emotional & social
Schneider et al. (2007)	stroke & neurology	motor skills
Seinfeld (2013)	older adults cog functions	cognition, mood, life quality
Stefani & Biasutti (2016)	adult psych outpatients	efficacy of psychotropics
Van der Steen et al. (2018)	people with dementia	reduce depress, behavior prob
Zhang et al. (2017)	elderly dementia patients	behavioral & cog function

In a controlled study at a residential care facility for the elderly, Costa et al. (2018a) found that access to preferred music resulted in a significant reduction in pain, anxiety, and depression. They had similar findings when replicating the study with an alternate, qualitative, and mixed methods approach (Costa et al., 2018b). Ing-Randolph (2015) conducted a review of studies assessing the impact of group music interventions and discovered noteworthy reductions in dementia-associated anxiety among inpatients with mild to severe dementia, and Li et al. (2015) discovered improved cognitive functioning from music interventions. Särkämö et al. (2014) further confirmed these cognitive findings, with a randomized controlled study, in addition to emotional and social improvements, and Schneider et al. (2007) successfully utilized musical instruments for motor skill recovery in elderly stroke patients.

Of course, disabilities can develop at any phase of development, even during intrauterine life (Zheng et al., 2004). Baltes and Smith (2003) reviewed the literature on this final phase of life with its declining cognitive, physical, and psychological functionality and raised the question if, "... major investments into extending the life span into the fourth age actually reduce the opportunities of an increasing number of people to live and die in dignity" (p. 123). Such a question concerning investment for the terminally ill and infirm can lead to a slippery slope, and cuts in treatment and care for all the disabled. Yet, as a provocative issue, the question may serve to focus investment on methods for increasing the dignity for those in a dependent phase of life. Altenmüller et al. (2009) found music therapy helped stroke victims reduce motor impairments through the associated neural network reorganization that musical activity stimulated.

A. Cohen et al. (2002) explored the importance of music for seniors in the second rung of the Canadian Study of Health and Aging (CSHA2). Those who had been more engaged with music in their lives rated music as significantly more essential. As such, the researchers called for increased access to music opportunities (Cohen, A. et al., 2002). Varvarigou et al. (2013) wondered what music learners might be able to achieve in their late Fourth Age, and determined that with adequate opportunities, enthusiasm, and encouragement from their environment and music facilitators, they could excel.

To assess the impact of musical activities on health and wellbeing, Paolantonio et al. (2020) delivered 10 weekly music sessions to residents of four nursing homes in Southern Switzerland (i.e., focusing on singing, rhythm-based activities with percussion instruments, and listening to short, live performances). Thematic analysis revealed improved wellbeing based on the PERMA model (i.e., Positive Emotion, Engagement, Relationships, Meaning and Accomplishment).

In a follow-up study with 20 residents from six nursing homes in Switzerland, Paolantonio et al. (2021) reported that “little is known about how and to what extent those who live in nursing homes have access to music and the functions that music plays in their lives” (Paolantonio et al., 2021, p. 309). They set out to fill this gap in knowledge, interviewing 20 residents across six Swiss nursing homes. Thematic analysis revealed that music made them feel better, experience more quality of life, and was clearly related to their sense of identity. Yet, the availability of musical activities decreased once they resided at their nursing home, and many requested greater access to music in their daily lives going forward (Paolantonio et al., 2021).

Creech et al. (2013) reviewed the literature looking at engagement in music activities and highlighted some benefits of enhancing health and well-being for seniors.

They reported:

Active music-making has been found to provide a source of enhanced social cohesion, enjoyment, personal development, and empowerment, and to contribute to recovery from depression and maintenance of personal well-being throughout these latter stages of adult life (Creech et al., 2013, p. 87).

Creech et al. (2013) utilized a case study method to highlight the major findings of their review. I found their approach consistent with the clinical approach that had been required of me since my early days as a psychology intern. When information from very diverse sources all converge on the same conclusion, confidence in that conclusion builds. Creech et al. (2013) looked for parallels between the literature in the field and their case study findings, and when combined with the studies by Paolantonio et al. (2020) and Paolantonio et al. (2021), they subsequently helped guide my current study (i.e., looking for parallels between the literature review, herein, and the themes that arose from a thematic analysis of the interview data of my nursing home participants). This will be addressed in Chapter Three.

The Prevalence and Impact of MPCs

Musical Performance Anxiety, a prevalent type of MPCs, has been observed worldwide. To highlight how diverse the research has been, consider the works by Barbar et al. (2014a, 2014b) in Brazil, Chan (2011) in Hong Kong, Cox and Kenardy (1993) and Kenny et al. (2013) in Australia, Dalkiran et al. (2014) in Turkey, Liu (2016) in Taiwan,

Neftel et al. (1982) in Switzerland, Rae and McCambridge (2004) in Northern Ireland, Yoshie et al. (2009) in Japan, and also in Spain (Zarza-Alzugaray, Hernández et al. 2015; Zarza-Alzugaray, Orejudo et al. 2018) in Spain, and Estes (2024) in American public schools.

As detailed by Osborne and Kirsner (2022) MPA is a ubiquitous and often incapacitating problem confronted by both amateur and professional musicians, negatively impacting the quality of their music. MPA can also produce psychological distress, which can be corrosive to self-confidence, and even lead to performance avoidance. Their review also underscores that MPA tends to manifest early in a musician's career, exerting a negative impact on their overall achievements.

Much of the research investigating the vulnerabilities and mechanisms associated with MPA has focused on biological characteristics such as age and gender, psychological characteristics such as trait anxiety, social phobia, and perfectionism, in addition to associated factors such as musical genre, and performance context. These factors have been identified as pertinent in predicting and coping with performance anxiety in musicians (Osborne & Kirsner, 2022, p. 204; Reiss, 1982).

The prevalence of MPA is not restricted to a specific musical instrument or genre, as evidenced by a multitude of studies. Abril (2007) examined MPA in vocalists, Amorim and Jorge (2016) in violinists, Levy et al. (2011) in percussionists, Yoshie et al. (2009) in pianists, and Zhukov (2019) in woodwind players. Similarly, significant MPA has been found across a diverse range of musical genres, such as the research of Cooper and Wills (1989) delving into popular music, and the study of Gillespie and Myers (2000)

looking at rock music. Papageorgi et al. (2013) conducted a comprehensive study comparing Western classical, jazz, popular, and Scottish traditional music. Gender differences in MPA have also been explored by Kubzansky and Stewart (1999), Ryan (2004), and Wehr-Flowers (2006).

Although the body of research on MPA is substantial, it is not without contradiction. Some studies, like those by Simoens et al. (2015), Steptoe and Fidler (1987), and Wesner et al. (1990), suggest that excessive anxiety can hinder performance, while Dyce and O'Connor (1994) reported that moderate levels of arousal can actually enhance performance in certain cases.

Many scholars have researched and documented MPA across different age categories (e.g., Boucher & Ryan, 2011; Sternbach, 2008). Boucher and Ryan (2011) researched MPA in children taking preschool music lessons and engaging in concerts. Ryan (2004), and Su et al. (2010) studied MPA in elementary schoolers, and Sternbach (2008) studied the phenomenon in high school and college students. Whereas many have explored MPA in children and adults ranging from age 8 to 55 (e.g., Zarza-Alzugaray, Orejudo et al., 2018), fewer researchers have looked at MPA in seniors (e.g., Barbeau, 2017; Barbeau & Mantie, 2019).

As noted in the *Background* material above (i.e., Chapter One), researchers have acknowledged numerous, and frequently dissimilar, components of MPA (Barbeau, 2011; Kenny, 2011). Barbeau (2011) witnessed intersecting, yet different terms being used (e.g., anxiety, arousal, fear, performance anxiety, stage fright, and stress), exclusive of any sharp contrast being made with MPA.

At a New Zealand university, Kenny (2009) reported a significant factor of depression emerged in the data of the revised Kenny Musical Performance Anxiety Inventory. Several investigators focused on other factors different from anxiety (e.g., depression) but incorporated these separate affective states and traits within the rubric of MPA (Kenny, 2011). In the current dissertation I argue against such a classification, instead, classifying depression as a separate MPC. Reker et al. (2014) discovered musical performance depression and clinically significant amusia in depressed patients from Münster, Germany, which supports this argument that depression is a form of MPCs and not a subset of MPA.

Furthermore, Lecuona et al. (2023) reported a strong relationship between MPA and other forms of MPCs, such as, the negative emotions assessed by the Positive and Negative Affective Schedule (PANAS) developed by Watson et al. (1988). The test goes beyond anxiety and includes measures of interest, distress, excitement, upset, strength, guilt, scared feelings, hostility, enthusiasm, pride, irritability, alertness, shame, inspiration, nervousness, determination, attentiveness, jitters, activity, and fear (Watson et al., 1988). Sadler and Miller (2010) reported a relationship between impaired musical performance and other negative affects, in addition to MPA, per se. Among Texan undergraduate students, Gavin (2012) found decreased self-confidence, and significant anger (i.e., another form of MPC) towards their graduate assistants, and it contributed to their reasons for withdrawing from college music programs. Clearly, more research is needed.

Recently, as illustrated in Table 5, additional researchers have investigated the

impact of music in the life of seniors, and some have looked at nursing home residents in this respect, but there has not been a thorough conceptualization of Musical Performance Components (MPCs) in this regard. In this qualitative study I explore MPCs in a small segment of a population that has been relatively neglected in the literature (i.e., nursing home residents that have been engaged in musical activities since childhood).

The Environment & Audience

McPherson and Welch (2018) spoke of the diverse contexts within which music education and musical performances occur, including those that are:

... formal (such as in schools, music studios), nonformal (such as in structured community settings), or informal (such as making music with friends and family, or somewhat incidental to another activity (such as car travel, walking through a shopping mall, watching a television advert, or playing with a toy) (p. xvii).

Bartleet and Higgins (2018) highlighted a wide variety of contexts where community music thrives, sometimes in challenging environments. Virtual contexts provide entirely new possibilities for music education, performances, composition, and collaborations in online communities (e.g., Beckstead, 1998; Salavuo, 2006; Waldron, 2011; Waldron & Veblen, 2008), especially, since COVID-19 (Galván & Clauhs, 2020), and connections have been found between social media, self-esteem, and MPA (Hejjawi, 2023).

Researchers have emphasized the importance of how situations are appraised as possible triggers of MPA reactions, with perceptions of ego-threatening, unpredictable, and uncontrollable situations explaining much of the variance in MPA (Barbeau, 2017; Lupien et al., 2015). This may be true for the reactions of other MPCs, as well. Leglar

(1978) reported increased indicators of MPA in music majors and postgraduate professional musicians when critics and professional peers were present. Brotons (1994), and Hamann and Sobaje (1983) found increases in MPA associated with juried situations compared with non-juried musical performances. Kendrick et al. (1982) discovered higher degrees of MPA in environments involving the possibility of being judged harshly by the audience, or concerns about one's performance being compared with others. LeBlanc et al. (1997) had similar findings, and Rae and McCambridge (2004) reported high anxiety levels associated with practical examinations in music courses. Kenny and Osborne (2006) obtained significantly lower levels of MPA during solitary practice compared with higher levels during examination situations. Several researchers found increased MPA in solo performance versus ensemble situations (e.g., Maroon, 2003; Nicholson et al., 2015; Salmon et al., 1989). Additionally, Kenny (2011) detailed how MPA reactions to an audience situation can exacerbate the experience of MPA, or dampen it in more relaxed settings, such as, practicing alone or among more accepting individuals, family, or friends, depending on the relationships. In summary, both the environment and audience play a role in the MPA literature, and are likely to impact MPCs, as well.

Components of Musical Performance

Some of the overlapping, yet distinct terms observed by Barbeau (2011) are listed in Table 6 (e.g., anxiety, arousal, fear, performance anxiety, stage fright, and stress) along with the researchers who used them in relationship to musical performance without always clearly distinguishing them from MPA. Most measures focused on assessing an

enduring trait of MPA, and a few developed measures of transient states (Osborne and Kenny, 2005). The Spielberger (1983) State-Trait Anxiety Inventory (i.e., a non-music performance anxiety measure) has often been adapted for specific research questions concerning MPA without re-assessing the reliability and validity of the new versions (Kenny, 2011; Osborne & Kenny, 2005).

Table 6

Some Alternate Terms for MPA & the Researchers Using Them

Terms:	Researchers:
Anxiety Arousal	(Barlow, 2000; Bears et al., 2007; Kirchner et al., 2008; May, 1977). (Craske & Craig, 1984; Emmons & Thomas, 2008; Kirchner et al., 2008; Steptoe, 1989).
Fear Performance Anxiety Stage Fright	(Bear et al., 2007; Baars & Gage, 2007; Kindt et al., 2009). (Abbott & Rapee, 2004; Simon & Martens, 1979; Wilson, 2002). (Bippus & Daly, 1999; Fredrikson & Gunnarsson, 1992; Nagel, 1993, 2017; Salmon, 1990; Steptoe & Fidler, 1987).
Stress	(Lazarus & Folkman, 1984; Lupien et al., 2015).

An operational definition of MPA would define it as what the assessment procedures of MPA actually measure (Miller et al., 2013). However, such a pragmatic definition is only as good as the methods used for measurement and requires reliable test scores sufficiently free from error (Meyer, 2010), and valid scores appropriate for their intended use (Spies et al., 2010). In qualitative research the dependability and trustworthiness of methods are required (Lincoln & Guba, 1985).

Since Osborne and Kenny's (2005) review, several additional measures of trait-MPA have been developed with some significant improvements (e.g., Barbar et al., 2014a; Boucher & Ryan, 2011; Dalkiran et al., 2014; Zarza-Alzugaray, Hernández et al. 2015; Zarza-Alzugaray, Orejudo et al. 2018).

Table 7*Instruments for Measuring MPA & Test Developers*

Measurement Instruments:	Developers:
Achievement Anxiety Test Scale	(Sweeney & Horan, 1982)
Adaptive–Maladaptive Anxiety Scale	(Wolfe, 1989)
Anxiety Differential	(Sweeney & Horan, 1982)
Individual Instrument Performance Anxiety Scale-Turkish	(Dalkiran et al., 2014)
Kenny Musician’s Questionnaire	(Wills & Cooper, 1988)
Music Performance Anxiety Inventory	(Kenny, 2009)
Kenny Music Performance Anxiety Inventory-Portuguese	(Barbar et al., 2014a)
Kenny Music Performance Anxiety Inventory-Spanish	(Zarza-Alzugaray, Hernández et al. 2015)
Music Performance Anxiety Inventory for Adolescents	(Osborne & Kenny, 2005)
Music Performance Anxiety Questionnaire	(Lehrer et al., 1990)
Music Performance Anxiety Scale	(Wolfe, 1989)
Music Performance Stress Survey	(Brodsky et al., 1994)
Performance Anxiety Inventory	(Nagle et al., 1989)
Performance Anxiety Inventory-Chinese	(Liu, 2016)
Personal Report of Confidence as a Performer	(Appel, 1976)
Performance Anxiety Inventory for Musicians	(Barbeau, 2011)
Performance Anxiety Questionnaire-CK	(Cox & Kenardy, 1993)
Performance Anxiety Questionnaire-Spanish	(Zarza-Alzugaray, Orejudo et al., 2018)
Performance Anxiety Questionnaire-WND	(Wesner et al., 1990)
Performance Anxiety Self-Statement Scale	(Kendrick et al., 1982)
Performance Inventory	(Kubzansky & Stewart, 1999)
Piano Performance Anxiety Scale	(Sweeney & Horan, 1982)
Self-Efficacy Scale	(Craske & Craig (1984)
Self-Report, Observation & Cortical Secretions of Preschoolers	(Boucher & Ryan, 2011)
Self-Statement Questionnaire	(Steptoe & Fidler, 1987)
Stage Fright Rating Scale	(Neftel et al., 1982)
State Emotion Questionnaire	(Kubzansky & Stewart, 1999)
State-Trait Anxiety Inventory-Chinese	(Liu, 2016)
State-Trait Anxiety Inventory-State Version	(Spielberger, 1983, 2013a, 2013b)
State-Trait Anxiety Inventory-Trait Version	(Spielberger, 1983, 2013a, 2013b)
Trait Anxiety Scale	(Wolfe, 1989)

Table 7 itemizes these and other measurement instruments, and associated test developers. However, as a whole they still fall short of the required AERA, APA, and NCME (1999) test construction standards. Thus far, no measurement instrument of MPA has ever been accepted into the *Buros Mental Measurements Yearbook*, considered the gold standard for evaluating psychological tests for research, or clinical purposes.

Aside from anxiety, some researchers also found a negative relationship between depression and musical performance (e.g., Mineka & Zinbarg, 1996; Reker et al., 2014), especially when associated with brooding ruminations (Jones et al., 2014). Partially based on the works of Barlow (2002) concerning anxiety disorders, and Bowlby (1969, 1973, 1980) concerning childhood attachment and separation, Kenny (2010) put forth a developmental theory of MPA, speculating about multiple subtypes including one with its etiology in childhood separation and depression.

The Kenny (2009) measure of MPA has a factor that appears related to transitory states of MPA, in addition to a factor that appears to reflect depression, which was proposed as being part of MPA, and negatively impacts musical performance. Yet, some have found a positive relationship between depression and musical performance (Andrews & Thomson, 2009), especially when associated with reflective ruminations (Nolen-Hoeksema et al., 2008; Verhaeghen et al., 2005). When interviewed, Kenny agreed the depressive component in the Kenny MPA Inventory may, in the end, prove to be a moderator or mediator entirely separate from MPA, and Kenny also agreed a path analysis, utilizing multilevel structural equation modeling, could be used to tease out the relationship (D. Kenny, personal communication, December 1, 2019).

While there have been several studies (e.g., Liu et al., 2021), which explored the impact of certain types of music (e.g., calm music, happy music, and sad music) on negative affect from the Positive and Negative Affect Schedule (PANAS) developed by Watson et al. (1988), there has been a relative lack of research concerning negative affect of this sort on musical performance, *per se*.

With that said, Rodríguez-Carvajal et al. (2017), and Lecuona et al. (2023) used the PANAS to study musical performance with state and trait measures of positive affect (e.g., enthusiasm, happiness, joy), negative affect (e.g., fear, disgust, anxiety, sadness, anger), and physiological arousal (e.g., dry mouth, shortness of breath, shaky, lightheadedness). The negative impact of anger on musical performance has been reported (Gavin, 2012; Kaleńska-Rodzaj, 2020), and similar to the research on anxiety and depression, Tamir et al. (2008) found a positive relationship between anger and musical performance (i.e., in confrontational contexts, but not nonconfrontational contexts).

A few researchers looked at happiness as a component (Hills & Argyle, 1998; Juslin & Madison, 1999; Kaleńska-Rodzaj, 2018). Although some have looked at the impact on the performance of creative ecstasy and the love-hate relationship a performer may have with the audience (e.g., Racy, 1991), to date, romantic feelings (e.g., amorousness), or lack thereof (e.g., unloving feelings or disgust) have not been included in studies of musical performance.

As noted above, researchers specify numerous, and frequently dissimilar, features of MPA (Barbeau, 2011; Kenny, 2011). Agreement on how to best define and measure

MPA remains murky. Barbeau (2011) reviewed coinciding, yet dissimilar terms employed without consistently and unmistakably differentiating them from MPA. Incongruities flourish, and endeavors have been made to hone the definition, some by incorporating the affective, behavioral, cognitive, physiological, and spiritual components of MPA (Barbeau, 2011; Kenny, 2006, 2009, 2010). Others have included additional factors, such as, depression in the measurement of MPA (e.g., Kenny, 2009). Going forward, the American Psychiatric Association (2000) recommendation for making dual or multiple diagnoses may prove pragmatic (e.g., listing the components of depression as separate when seen in combination with components of anxiety).

In this section, I review each component in turn, followed by a summary of research on the continuum of musical performance reactions. Then I expand upon these reactions to include other basic states, moods, and dispositional traits beyond anxiety, per se (e.g., individual differences in sadness, anger, happiness, amorousness, or spirituality). Finally, I rename the broadened phenomena of interest under the general title, Musical Performance Components, with the acronym MPCs, as mentioned at the outset.

Examples of each component mentioned, might logically be measured along a continuum of frequency, intensity, and duration, even if prior research had only considered one aspect of it in the past. Indeed, examples of MPCs may also include their opposites (e.g., anxious-calm, trembling-steady, inattentive-focused, peripheral vascular constriction-dilation, and spirituality-sense of evil), as well as more neutral aspects without a greater pull towards either end of the continuum. Furthermore, these Musical Performance Components (MPCs) may impact different people differently, along a continuum from

benefitting musical performance at one end, to having a detrimental impact on musical performance at the other end.

Finally, it should be noted that the following specification tables of MPCs are based on research to date. I do not venture to suggest that they are exhaustive of all the possible components involved in musical education, practice, performance, and appreciation. Rather, they represent those components that were found in the current literature review, and they will be held up to scrutiny when compared and contrasted with any MPCs that may, or may not, result from the thematic analysis of the interviews with the 20 nursing home residents who participated in the current study.

Affective

Norman et al. (2003) described anxiety as intense fear with feelings of uncertainty and apprehension. Spielberger (2013a, 2013b) distinguished state from trait anxiety, with the former resulting in brief situational spikes of anxiety, while the latter resulting in an enduring tendency to be generally anxious throughout life. Researchers have found that trait anxiety is an emotional predictor of MPA (e.g., Hamann, 1982; Kenny & Osborne, 2006; Osborne & Kenny, 2005, 2008; Papageorgi et al., 2013; Papageorgi et al. 2007). The distinction between states and traits will be addressed further in the *Continuum of MPCs Reactions* section, listed below.

In summary, various affective reactions were discovered in the current literature review when investigating MPA experiences and other factors, currently termed MPCs. Table 8 contains a list of some pertinent affects associated with musical performance that researchers highlighted (e.g., Abel & Larkin, 1990; Barbeau, 2011, 2017; Craske & Craig, 1984; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lehrer, 1987; Reiss,

1983; Reitman, 2001; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989). Emotions associated with other basic states, moods, and dispositional traits are also included along with anxiety. Lecuona et al. (2023) reported a strong relationship between MPA and other forms of MPCs, such as, the negative emotions in the PANAS.

Table 8

Literature Review: Affective Components Associated with Musical Activity

Affective Responses	
Amorousness.	Happy.
Anger.	Hypersensitivity.
Anxiety.	Inspired.
Apathy.	Insecurity.
Apprehension.	Irritability.
Calm.	Joyful.
Confident.	Lack of confidence.
Depression.	Lack of energy.
Disgust	Loss of pleasure.
Emotional instability	Overwhelmed.
Enthusied.	Nervousness.
Excitement.	Peaceful.
Fear of disapproval.	Rage.
Fear of failure.	Restlessness.
Feeling powerless.	Sadness.
Feeling uncertain.	Serene.
Fright.	Shame.
Fury.	Unloving.
Guilt.	

Notice the affective responses listed in Table 8 may also have behavioral, cognitive, physiological, or spiritual aspects associated with them. However, without additional specification, these responses cannot be categorized more precisely other than under the umbrella term of affect. For example, if people say they are depressed, some may mean they are sad (i.e., affect), moving at a slowed pace (i.e., behavioral), having thoughts

about lacking confidence (i.e., cognitive), and losing appetite (physiological), while others may mean they are experiencing a crisis of faith (i.e., spiritual).

Behavioral

A review of the literature on the behaviors associated with musical performance uncovered MPA components, and other factors more accurately deemed MPCs. They are included in Table 9 (e.g., Barbeau, 2011, 2017; Craske & Craig, 1984; Kendrick et al., 1982; Kenny, 2006, 2011; Kenny & Osborne, 2006; Lehrer, 1987; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Table 9

Literature Review: Behavioral Components Associated with Musical Activity

Behavioral Responses	
Agitation.	Hesitant.
Angry outbursts.	Impaired musical performance.
Avoidance. *	Increased cravings.
Being late for performance.	Increased eye blinking.
Changes in eating. **	Interpersonal problems.
Changes in effort. **	Lack of motor control.
Changes in sexual behavior. **	Lack of voice control.
Changes in social activity. **	Leaving venue early.
Changes in substance use (e.g., alcohol). **	Not eating.
Changes in usual activities & practice regimen. **	Poised.
Faltering.	Sleep problem (too much or little).
Fidgeting.	Slowed reaction time.
Fit.	Steady.
Foot tapping.	Strong.
Freezing up.	Trembling.
	Weak.

* (e.g., avoiding difficult passages, solos, auditions, or practice)

** (changes = increases or decreases)

In support of the Feldenkrais Method, Paparo (2022) indicated that the direction, intensity, speed, and weight of movement uniquely effects a musician’s performance, and

then argued that "... becoming more aware and attuned to how they enact their intentions, musicians of all levels can improve their technical skills and musical expression" (p. 3). Hatfield et al. (2022) accentuated the unique mannerisms musicians develop under stress, when they noted how two musicians can perform on a par with one another when practicing, but the result when performing in a concert can be on completely different levels. According to Platz and Kopiez:

...the preparation of a live performance should be comprehensive and consider much more than the presentation of a highly polished realization of a score ... research has tended to focus [on] expressive gestures, facial actions, movements, and step length while entering the stage. In the future, other modalities are waiting to be studied (Platz & Kopiez, 2022, p. 84).

Valentine et al. (2022) noted that habitual patterns of muscle tension can impair musical performance, something Alexander (1932) focused on when he developed his technique for aligning the head, neck, and back. Developing the proper muscle memory through deliberate practice, actively engaging with, and playing one's instrument, is the required way to learn (Clark & Williamon, 2022; Ericsson et al. 1993). Sadler and Miller (2010) reported a relationship between impaired musical performance and negative affect. Poor performance quality and lack of sufficient vigor were related to negative affect (e.g., MPA, a form of MPC), as were trembling knees and hands, lifted shoulders, and stiff neck, arms, and back (Craske & Craig, 1984). Greater synchrony, and a stronger relationship were found between avoidance behaviors and self-reports of fear, whereas the relationships between such behaviors and autonomic indices of fear were weaker

(Rachman, 1978).

From a conceptual point of view, Papageorgi et al. (2007) were interested in the fight and flight response, school attendance, and performance mastery as related to MPA. Avoidance behaviors and changes in effort were also associated with MPA, as were various neuroendocrine and cardiovascular reactions, which will be discussed further in the *Physiological* section, listed below (Fredrikson & Gunnarsson, 1992). Suffice it to say here that the classification of some behaviors may not be so easy to attain. For example, Lindenmayer (2000) defined agitation as a “nonspecific constellation of relatively unrelated behaviors,” but went on to conclude that, “agents that reduce dopaminergic or noradrenergic tone or increase serotonergic or GABAergic tone will attenuate agitation often irrespective of etiology,” suggesting agitation may be viewed as a physiological response (p. 5). As such, some choices concerning various classifications needed to be made. The constellation of behaviors associated with agitation led to it being classified as a behavioral reaction. Keep in mind, when a more precise category is not clear, the general umbrella category of affective reaction can be resorted to.

Cognitive

According to Salmon (1990) cognitions associated with MPA (i.e., a form of MPCs) tend to “... focus on troublesome thoughts that serve both as distractions and as cues that further increase one’s anxiety” (p. 3). As examples, Kenny and Osborne (2006) noted that unwanted thoughts, worry, and other attentional disruptions can impair musical performance. Kendrick et al. (1982) reported unwarranted, extraneous, and unsettling thoughts including ruminating about shortcomings, related to high degrees of MPA.

The current review of the literature on the cognitions associated with musical performance, uncovered MPA components, and other factors more accurately deemed MPCs. They are included in Table 10 (e.g., Barbeau, 2011, 2017; Kendrick et al., 1982; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lecuona et al., 2023; Lederman, 1999; Lehrer, 1987; Osborne & Franklin, 2002; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Table 10

Literature Review: Cognitive Components Associated with Musical Activity

Cognitive Responses	
Absorbed.	Memory slips.
Changes in attentional abilities. *	Negative thoughts.
Changes in confident thinking. *	Nightmares.
Cognitive flexibility.	Perfectionism.
Cognitive rigidity.	Positive self-concept.
Concentration abilities. *	Racing thoughts.
Confusion.	Recall. *
Creative problem-solving.	Riveted.
Distorted thinking.	Ruminating. *
Engrossed.	Self-consciousness
Focused.	Sleep disorders.
Forgetfulness.	Slowed thinking.
Impaired problem-solving.	Thought modulation.
Impaired decision-making.	Unwanted thoughts.
Inattentive.	Vigilant.
Irrelevant thoughts.	Worries concerning performance.

* (increases or decreases)

Nielsen et al. (2018) reported findings that negative post-event ruminations about one's performance are significantly related to MPA. Osborne & Franklin (2002) found that the increased ratings of likely negative consequences, from negative evaluations, in more formal settings were predictive of MPA, and Osborne (2016) found that by building confident thinking in children is related to improved musical performance.

Cognitions associated with other basic states, moods, and dispositional traits (e.g., individual differences in sadness, anger, happiness, amorousness, or spirituality) are also included, and may overlap with those associated with MPA, such as, attention and concentration issues noted by Subramaniam and Vinogradov (2013). Positive affect enhances cognitive ability, improves attention, concentration, and problem solving, and heightens creative capacities (Isen, 2000; Isen et al., 1985, 1987, 1991, Isen & Reeve, 2005). These and other cognitions associated with musical performance are included in Table 10. Kendrick et al. (1982) indicated cognitive reactions (e.g., worries concerning performance) can have a greater negative impact on musical performance than affective reactions. However, the latter can also be detrimental. Diaz (2022) indicated musicianship can be improved by cognitive mindfulness, described as a:

Process of maintaining focus while simultaneously monitoring for and disengaging from unwanted thoughts and feelings has been described as mindfulness ... When individuals are in a mindful state, they experience numerous emotional and psychological benefits, including increased focus and wellbeing (p. 65).

How to code mindfulness raised some questions for me given it can stratal different categories (i.e., cognitive, physiological, spiritual, or the umbrella category of affect for lack of specificity). This issue will be addressed in greater detail below, in the section on spirituality dealing with Table 12.

Physiological

This review of the literature on the physiology associated with musical performance uncovered MPA components, and other MPCs. They are included in Table 11 (e.g., Abel & Larkin, 1990; Barbeau, 2011, 2017; S. Cohen & Bodner, 2019; Craske & Craig, 1984; Fredrikson & Gunnarsson, 1992; Kenny, 2006, 2011; Kreutz et al., 2004; Lederman, 1999; Lehrer, 1987; Lecuona et al., 2023; Münte et al., 2002; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Table 11

Literature Review: Physiological Components Associated with Musical Activity

Physiological Responses	
Backache.	Lightheadedness.
Butterflies in the stomach.	Muscle pain.
Cardiovascular performance. *	Muscle tension.
Chest pain.	Musculoskeletal performance. *
Cold feet.	Nausea/vomiting.
Cold hands.	Neurotransmitter changes. **
Constipation.	Numbness/tingling.
Diarrhea.	Peripheral vascular constriction.
Dizziness.	Perspiration.
Dry mouth.	Pounding heart.
Endocrine performance. *	Respiratory performance. *
Eye Dilation.	Shaky. Shortness of breath.
Headaches.	Skin problems.
High blood pressure.	Tiredness.
Hot flashes.	Twitches.
Immune system performance. *	Upset stomach.
Irregular heartbeat.	Urge to urinate.

* (performance = improved or degraded)

** (changes = increases or decreases)

Craske and Craig (1984) found a relationship between synchrony across physiological systems, and emotionality. They noted the greater the synchrony, the

greater the emotional responses. Desynchrony was associated with less anxiety.

Furthermore, physiological responses associated with other basic states, moods, and dispositional traits are also included, herein.

Once again, a reasonable debate could be had for classifying a couple of terms differently. For example, shaky reactions may be viewed as behavioral, as well as physiological. Fancourt et al. (2014) reviewed research on the cognitive neuroscience of music, termed neuromusicology by Peretz and Zatorre (2003), which may be viewed as cognitive as well as physiological. This area of research has covered the neuroanatomy of musical performance (e.g., Parsons, 2001; Parsons et al., 2005), the neurobiology of harmony, rhythm, and other aspects of music (e.g., Molinari et al., 2003; Tramo et al., 2003), the psychoneuro-immunological effects of music (Fancourt et al., 2014), and the neurology underpinning music-induced affect (e.g., Juslin, 2009; Trainor & Schmit, 2003). The complex interplay between affective, behavioral, and cognitive components of musical performance is also "... underpinned by the involvement of a large number of cortical and subcortical brain regions during music listening and music-making activities" (Altenmüller, 2022, p. 157). When the data are not available to make the determination between the different component categories (e.g., when dealing with a nonspecific sense of shakiness) the affective reaction category can be used as the all-encompassing term.

Whereas most research has focused on reducing pathological aspects of musical performance impairments, S. Cohen and Bodner (2019) addressed ways of facilitating positive functioning with mental skills and physiological awareness training that were significantly related to improved musical performance. With respect to neurotransmitter

changes that can impact musical performance, optimal levels of Dopamine improve mood, happiness and focus, optimal levels of Noradrenaline improve reaction time to challenges, and Acetylcholine improves retention of information for solving new challenges, otherwise known as the process of neuroplasticity (Münte et al., 2002). The plasticity of the brain can be induced by musical activity at all levels of musicianship, improving sensory-motor control, memory, emotional stability and wellbeing for amateurs and professionals, and for the young of age, the elderly, and infirmed (Altenmüller, 2007; Altenmüller & Furuya, 2016; Schuppert & Altenmüller, 2022).

Spiritual

This review of the literature revealed the following list of spiritual reactions associated with musical performance that individuals may experience. See Table 12. Some of these spiritual factors may be associated with MPA, whereas others may be more accurately deemed MPCs (e.g., Beck, 2006; Boyce-Tillman, 2007, 2016, 2017, 2018; Clendening-Wallen, 1993; Clift & Hancox, 2001; Elkins, 1988; Elliott & Silverman, 2015; Hays et al., 2002; Hays & Minichiello, 2005; Hendricks & Boyce-Tillman, 2021; Kang & Whittingham, 2010; Lee et al., 2016; Lykins, 2014; Mantie, 2012; Monteiro et al., 2015; Palmer, 2006; Randles et al., 2022; Smith, 2022a, 2022b; Smith & Silverman 2020; Van der Merwe & Habron, 2015; Van Gordon et al., 2015; Zoughbi, 2022).

Table 12

Literature Review: Spiritual Components Associated with Musical Activity

Spiritual Responses	
Divine.	Naturalistic well-being.
Enlightened.	Related to something greater than us.
Ethereal.	Sacred.
Experiencing spirituality.	Sense of evil.
Heavenly.	Sinful.
Ineffable.	Spiritual eudaimonia.
Inspirational.	Spiritual euphoria.
Mindfulness.	Spiritual well-being.
Mystical fervor.	Transcendent.
	Wondrous.

As noted earlier, in the material titled *History of Music in Different Contexts*, Beck (2006) studied the musical sources of spiritual euphoria, social solidity, and inspiration in cultures around the world and across time. In practically every culture from the prehistoric age to the contemporary age, music provided a path to spiritual growth and empowerment (Zoughbi, 2022). Musical activities contribute to mental states that are conducive to eudaimonic, transcendental and psychological well-being, and are central to the development, and sustenance of most spiritual, and naturalistic belief systems (Beck, 2006; Hendricks & Boyce-Tillman, 2021; Smith, 2022a, 2022b; Smith & Silverman 2020; Zoughbi, 2022).

Spirituality has been defined as the “expression of spirit or soul, as opposed to material or physical things” (Randles et al., 2022, p. 257). According to Randles et al. (2022), based on their review of the literature concerned with spirituality in music

education (e.g., Fung, 2017; Van der Merwe & Habron, 2015), academics have developed a new and expanding interest in understanding what “spirituality ... means for both the musical and educational aspects of the human experience” (Randles et al., 2022, p. 257). Consistent with Albanese’s (1999) position, spirituality is a metaphysical construct, and as noted by Elkins et al (1988) spirituality is distinct from religious leanings, though they may overlap. As a function of consciousness, Lonergran’s (1982) post-Hegelian definition, and that of various humanist philosophers (e.g., Haack, 1982; Kober, 2006), influenced by positions, either accurately or inaccurately attributed to Ludwig Wittgenstein’s views of religious language, may have contributed to this upsurge in research on spirituality and music education (i.e., making it more accessible to study).

Over the past decade and a half, Boyce-Tillman (2007, 2016, 2017, 2018) and others (Girdzijauskas, 2017; Heuser, 2017), smoothed the path for greater discourse in music education surrounding the issue of spirituality. Their research incorporated the human spirit as central to any description of self and human existence, while proposing we consider the role service to others motivated by a higher purpose or calling, and its relationship to overall wellbeing when studying the beneficial aspects of musical activity (Boyce-Tillman, 2018). Elliott and Silverman (2015) philosophized about Aristotle’s (2001) notion of eudaimonia, and suggested spirituality is an integral part of self-conceptions of a life well lived, or the highest good.

As noted above, in the material titled *Second Age of Work and Child-Rearing*, Mantie (2012) discovered a strong relationship between spiritual well-being, and musical activity of adults engaged in community ensembles; and following an extensive literature

review, Hays et al. (2002) found a significant pattern between musical activity, and spiritual well-being in older people. Additionally, Lee et al. (2016) interviewed members of singing groups and identified eight factors through thematic analysis, including but not limited to, “spiritual and uplifting emotions” (Lee et al., 2016, p. 191).

Clendenon-Wallen (1993) used music to facilitate a sense of well-being in abused adolescents who had been experiencing a sense of evil, while feeling doomed. Hays and Minichiello (2005) investigated the importance of music for 52 Australian seniors. They found music provided the elderly, “ways of understanding and developing their self-identity; connecting with others; maintaining well-being; and experiencing and expressing spirituality” (Hays & Minichiello, 2005, p. 437). Clift & Hancox (2001) discovered that membership in a college choral society correlated with social, emotional, and spiritual benefits.

When exploring various philosophical works on spirituality and music education, Palmer (2006) compared the works of Rabindranath Tagore, Abraham Maslow, and Mihaly Csikszentmihalyi. In the past, I might not have associated their diverse areas of inquiry with the same theme of spirituality. However, a good argument can be made for doing so. Tagore wrote, “[When] our personality is in its flood-tide ... the spires of our temples try to kiss the stars, and the notes of our music to fathom the depth of the ineffable” (Tagore, 1917, p. 27). For Maslow, “Transcendence refers to the very highest and most inclusive or holistic levels of human consciousness” (Maslow, 1971, p. 279). And as Csikszentmihalyi put it, “Some people shift their priorities again, and envision the goal of transcendence. They attempt to move beyond the boundaries of their personal

limitations by integrating individual goals with larger ones, such as the welfare of the family, the community, humanity, the planet, or the cosmos” (Csikszentmihalyi, 1993, p. 219).

Mindfulness is an old Buddhist spiritual practice that dates back to about 500 B.C.E., which has been co-opted by secular clinical psychology for therapeutic purposes, while merely changing the way they speak about the practice (Kang & Whittingham, 2010; Monteiro et al., 2015; Van Gordon et al., 2015). Lykins (2014) reviewed the literature and found strong arguments and empirical support for spirituality as being important to well-being, and that mindfulness is the critical link between spirituality and health.

Mindfulness, which involves the intentional direction of attention to the present moment with an accepting and nonjudgmental attitude, has received a great deal of attention as a means to improve wellness via mindfulness-based interventions (MBIs). Though mindfulness is often learned or practiced in a secular manner, individuals often report spiritual benefits from their practice (Lykins, 2014, p. 203).

Newberg et al. (2003) determined that when Franciscan nuns prayed, and Buddhists meditated, their brain activity had significant similarities once they entered into deep spiritual contemplation, resulting in drastic reductions in parietal lobe activity, responsible for spatial orientation, and where one’s own body ends, and the outside world starts. They concluded that spirituality has a neurological basis because of the reduced neuronal firing in this region of the brain during spiritual experiences. Barnby et al.

(2015) found similar neural activation when participants engaged in mindfulness practices and spiritual practices, and Lykins (2014) concluded that spirituality and mindfulness remain, at least, overlapping constructs. Should deep spiritual contemplation be classified within the affective sciences as a physiological component, or as a spiritual component? I would argue for the latter category.

Continuum of Reactions Associated with MPCs

The Boyle et al. (2014) continuum of affect theory predicts a range of reactions associated with Musical Performance Components (MPCs), from brief but intense states, to lower-level moods that tend to endure over a longer period of time, to dispositional-traits that can be lifelong. The authors clarified the distinction further:

For example, ‘How you feel right now’ would measure momentary or fleeting emotional states, ‘How you have been feeling for the past week or past few weeks’ would measure longer-lasting moods, and ‘How you feel in general’ would measure a disposition/trait construct (Boyle et al., 2014, p. 190).

According to Ekman (1994), transitory affective states are comparatively short occurrences with a precise beginning and end, whereas moods endure for a relatively lengthier timeframe and are inclined to vacillate within a tighter margin of strength. Fisher (2000) further delineated moods that conceptually reside in the spaces between transient affective states, and more persistent dispositional traits. Moods are relatively less intense, but more stable, lasting a longer duration than their equivalent affective states, whereas dispositional traits reflect a general tendency that can last a lifetime, and can be difficult to change (Boyle et al., 2014).

Summary

As noted, herein, only a small number of studies have researched MPA in seniors (Barbeau, 2017; Barbeau & Mantie, 2019), and to date, no one has explored Musical Performance Components (MPCs), in general. The current study explored MPCs in a small segment of this population that had been relatively neglected in the literature, i.e., nursing home residents that have been engaged in musical activities since childhood. These senior musicians may afford sensible evidence concerning their knowledge of affective, behavioral, cognitive, physiological, and spiritual expressions of anxiety, sadness, anger, happiness, amorousness, spirituality, and other components of musical performance. These responses may have developed as transient states, longer lasting moods, and life-long dispositions during their life making music in relation to various music making environments and audiences. Their interview responses may help demarcate a state from a mood or dispositional-trait, and differences between variations in intensities, durations and the synchrony of symptoms, or lack thereof. Furthermore, the themes that were developed from the senior musicians' responses may support themes that were found in the literature review, while achieving trustworthiness through authenticity, confirmation, credibility, dependability, and transferability (Lincoln & Guba, 1985). It is hoped this knowledge may help lead to advances in music education, and community music facilitation methods.

CHAPTER THREE

Overview

In this part of the dissertation, I restate the research question, research design, participant & site selection, ethical considerations, positionality, data collection & analysis methods, thematic interview questions, recording procedures, template analysis utilized, dependability, and trustworthiness.

Method

Restatement of Research Question

1. How have the 20 nursing home residents who have actively engaged in musical education, appreciation, learning and performance since childhood, experienced, if at all, affective, behavioral, cognitive, physiological, and spiritual Musical Performance Components (MPCs)?

Research Design and Justification

It is important for researchers to determine what they actually want to discover before deciding on a methodology for conducting research (Symon, 2004; Symon and Cassell, 2012). Given that the focus guiding this research is to try and uncover memories of the experiences residents may have had with Musical Performance Components (MPCs) throughout life, interviews seemed most appropriate. In an attempt to overcome some of the limitations most cross-sectional MPA research (i.e., only capturing a snapshot in time), I used an open-ended thematic interview approach with template analysis. This decision was further supported by a variety of methodological sources outlined as follows. I have been using psychiatric interview techniques as a clinical tool,

since I was first introduced to the method about 50 years ago, and they remain standard in the field today (MacKinnon & Michels, 1971). As a research tool, interview techniques are not as well standardized. In a review of PsycINFO Eagly and Riger (2014) found that 8.7% were classified as qualitative-only (i.e., not including mixed-methods research), and an even smaller number used interview techniques. Yet, at the same time, they found qualitative methods to be on the rise in psychology, with an increased number of chapters in research methods textbooks, and various handbooks being published on the procedures, in addition to the formation of societies concerned with qualitative inquiry, and a journal called *Qualitative Methods*, among other advancements.

Bryman (1984) suggested there might be an epistemological conflict when combining qualitative and quantitative approaches. The positivist tradition, with its quantitative approach, supports an objectivist understanding of science and the world. From this viewpoint reality is best described as a concrete structure defined by sum of its parts. In contrast, qualitative investigation is rooted in an ontological foundation that depicts reality as an imaginative projection or social construction that is studied with subjective phenomenological processes and the science of meanings (Schell, 1992). Theoretically, thematic analysis falls within this classification and assumes reality is socially constructed, in that individual attribution of the meaning of particular phenomena, results from an interaction with those around them in context-specific settings, and how people make sense of their experience is the focus of this research. Yet,

The constructionist perspective conflicts with the postpositivist approach dominant in psychology today, which assumes that there is a measurable reality

independent of our perceptions. The postpositivist perspective emphasizes hypothesis testing and a search for causal relationships among variables, while the constructionist approach seeks to understand the subjective meaning people put on their experience ... However, qualitative data may be used in a postpositive, deductive manner to test hypotheses. For example, qualitative data may be coded, counted, and then treated quantitatively in statistical analyses. Alternatively, qualitative data may be used as an adjunct to quantitative data, either to develop hypotheses then tested quantitatively or to expand on quantitative findings (Riger & Sigurvinsdottir, 2016, p. 33).

At the extremes, these different assumptions about the constitution of knowledge provide little room for compromise, but pragmatic individuals fall somewhere in the middle of the spectrum between these polar positions (Schell, 1992).

The more pragmatic approach was utilized, starting with a review of the literature, including quantitative, qualitative, and mixed-methods research of the phenomenon in question. This was followed by the development of specification tables including various affective, behavioral, cognitive, physiological, and spiritual Musical Performance Components (MPCs), which were used to devise a preliminary template, and interview questions centered around themes common in the literature.

The results from an open-ended thematic interview approach with template analysis, were to be compared and contrasted with the specification tables that had resulted from the literature review. By triangulating the data from both multiple and diverse sources in this way, it was hoped a clearer picture would emerge regarding

whether or not the participants' experiences with musical performance matched up with specification tables and provided support for the identified MPCs.

This approach is supported by many researchers. For example, as mentioned in the previous chapter, Creech et al. (2013) looked for a convergence of the themes derived from literature reviews, and case study findings. Others have also endorsed this approach, including more positivistic advocates, as well as researchers from a constructionist perspective (e.g., Cassell & Symon, 2004; Creswell, 2007; Creswell & Plano, 2007; Denzin & Lincoln, 2011; Flyvbjerg, 2006; Miles & Huberman, 1984; Symon & Cassell, 2012).

Gorden (1980) laid out a practical guide to qualitative interviewing called *Interviewing: Strategy, Techniques, and Tactics*. With the third edition of their book, *Interviews: Learning the Craft of Qualitative Research Interviewing*, Brinkmann and Kvale (2014) provided an updated, insightful, research backed, step-by-step approach to developing and conducting successful qualitative interviews that are open-ended, and extremely flexible. The approach that I implemented herein was further supported and detailed in *The Oxford Handbook of Qualitative Research* (Leavy, 2014).

Poland (1995) stressed the importance of guaranteeing that interview transcripts are nearly verbatim versions of what was said, asked, and/or answered. As such, I recorded all the interviews prior to transcribing them, coding them, and analyzing the data. "Establishing the trustworthiness of the transcripts would appear to be a fundamental component of rigor in qualitative research" (Poland, 1995, p. 290). This is something I address in the methods section below.

Thematic analysis is a common method used in qualitative studies (Braun & Clark, 2006). The authors noted:

Thematic analysis is a poorly demarcated, rarely acknowledged, yet widely used qualitative analytic method within psychology ... [and] an accessible and theoretically flexible approach to analysing qualitative data (Braun & Clark, 2006, p. 77).

Yet, Boyatzis (1998) defined thematic analysis as:

a process for encoding qualitative information - can be thought of as a bridge between the languages of qualitative and quantitative research ... a process that is a part of many qualitative methods and provides clear guidance about learning to develop techniques to apply to research ... as well as how to develop codes (Boyatzis, 1998, p. 189).

Thematic template analysis is a specific form of thematic analysis, which is described in more detail below in the material on *Data Analysis*. Suffice it to say, template analysis emphasizes the use of hierarchical coding, but combines a relatively high degree of structure in the process of analyzing textual data with the flexibility to adjust it to the needs of the situation (Brooks et al., 2015).

With this method, I attempted to gain knowledge regarding the experiences of MPCs over time, and the continuum of reactions associated with MPCs (Boyle et al., 2014). I decided that with this format, the residents may provide useful information about how their experience of MPCs, if at all, changed throughout their lives, while shedding light on the differences between transient states associated with MPCs, longer lasting

moods, and potentially life-long dispositions, which could inform future research.

Identification of Participants

Given my interest in residents at the nursing home where I worked—and my desire to know how they have experienced, if at all, affective, behavioral, cognitive, physiological, and spiritual aspects of musical performance—both the site selection and canvassing of prospective participants were convenient, focused, purposeful, and decisive. Convenience sampling remains a common practice wherein researchers strive for balance between sampling error and practicality (Johnson & Christensen, 2008). Patton (2002, 2005) noted that purposeful sampling can help identify critical sources of rich material, and I decided to utilize this form of sampling when exploring experiences of MPCs in the lives of nursing home residents

Site Selection

I am a psychologist who has used music, art, and drama with more traditional psychotherapy approaches in his practice, and I currently work at various nursing homes in New York. I have worked at seven nursing homes in the New York metropolitan and Long Island areas, in addition to various hospitals and clinics in the United States, and Europe. I believe I have created spaces for the diversity of individuals, backgrounds, and cultures to find expression, and utilizing the resources at hand was expedient.

Criteria for Selection

I utilized a convenience sampling method starting with the nursing homes where I work. The sampling was purposeful, guided by the phenomenon of interest (i.e., my desire to explore MPCs in nursing homes and the lives of residents). The nursing homes

needed to have opportunities for residents to make music. One of the nursing homes consists of primarily psychiatric patients with psychosis, and the other nursing home had specialized units for those with cognitive impairments. Though the psychiatric facility, and units for the cognitively impaired might have been useful for a different sort of research question, in order to avoid concerns about impaired cognitive capacities and reality testing that might bias the findings, I did not utilize them.

When choosing cases, the typical average case is not always the best source of information. An outlier, rife with critical examples of the phenomena in question can reveal more information than average representative cases (Hakim, 1987, 2000; Schell, 1992). Thus, critical cases were decided upon, including former professional and amateur musicians, some with obvious individual differences in MPA, sadness, anger, happiness, amorousness, and spirituality, based on past encounters with them. I sought out both male and female, professional and amateur musicians, who engaged in musical activity at an early age, continued to do so throughout life, and at the nursing home while remaining cognitively intact, with some possible experiences associated with MPCs to share.

Recruiting

I asked for and received permission from the medical directors to meet with several residents at the nursing homes where I worked. I originally planned on a sample of 25 participants, but as is often the case in research the outcome is not always what is planned for. I conveniently approached those residents I knew that met the requirements, while providing informed consent consistent with APA, BU-IRB, and Health Insurance Portability and Accountability Act standards (APA, 2017; Boston University-IRB, 2022;

United States, 1996). I assured the potential participants the source of the data would be kept confidential, and in the end 20 individuals agreed to be interviewed about their possible experiences associated with MPCs and were able to follow through on their agreement.

Individual Participants

Residents needed to have been actively engaged in musical activities since childhood and continuing to do so while in the nursing home. They tended to be older than the general population, with decades of experience. The interviewees that agreed to participate were 20 cognitively intact New York nursing home residents actively engaged in musical activities throughout their lives and in the community.

Ethical Considerations

Patton (2002) identified challenges in qualitative inquiry, “Interviews can be and often are interventions. They can influence people. A good interview lays open thoughts, feelings, knowledge, and experience, not only of the interviewer, but also the interviewee” (p. 277). Given nursing homes are regulated by the HIPAA, and I am bound by the APA ethical principles and code of conduct; thus, choices concerning confidentiality and compensation were predetermined (APA, 2017; United States, 1996). The values considered in planning this qualitative study included the following: (a) non-maleficence, i.e., not causing harm; (b) beneficence, i.e., doing good; (c) autonomy, i.e., treating people with respect while enabling free choice; and (d) justice, i.e., risks/benefits, who will be advantaged and/or disadvantaged (Reiss, 2013).

Positionality

My position is that when approaching our research participants, students, and clients with music, it is essential that researchers, teachers, and caregivers take time to listen, and understand their philosophy of life and personal histories, before imposing a philosophy of music, developed from the long history of music education. By doing so, our philosophies may adapt in important ways.

I believe that helping research participants, students, and clients become more confident in their own abilities to contribute remains essential, and music research, education, and therapy can positively support this goal. For me, research, education, and therapy are not things, like a car, rather they are processes, like driving. Although you learn from your past experiences behind the wheel, driving is an interactive process, moment-to-moment, always perceiving changing aspects in the environment, processing the information in split-seconds, developing a plan of action based on past learning, personal characteristics, and affective reactions, and then actively and freely responding. That state of being might be referred to as living in the present. I think researching, teaching, and learning music can be analogous, albeit, not always as risky as driving.

Thus, in this study, knowledge was created through the dynamic interaction process between the participants and me. The study was inductive, context bound, following an emerging design, and value oriented. I attempted to discover how the participants have actively engaged in making music since childhood, and experienced, if at all, affective, behavioral, cognitive, physiological, and spiritual, Musical Performance Components (MPCs). My research, teaching, and learning paradigm, consistent with

Bolton and Delderfield (2018), is a process that tries to be reflective (i.e., to help see what is occurring, exploring the client's life within its social context, and adjusting appropriately going forward), reflexive (i.e., to help critically appraise one's role and underlying assumptions), and phronetic (i.e., to help with practical common sense in everyday-life, while taking action to effect change and resist hegemony). I try to be flexible increasing awareness on multiple levels while remaining consistent with McFerran's (2012) reflexive and individualized approach, Swayer's (2011) methods in the classroom setting, Montello's (1999) psychodynamic approach, in music therapy situations, and Aristotle's (2001) *phronesis*, utilizing wisdom and character in practical matters.

Data Collection & Analysis Methods

Following an extensive review of MPA, other components more accurately related to MPCs, and research associated with musical performance, I narrowed down themes from the literature. Then I chose the Boyle et al. (2014) continuum of affect theory as my theoretical framework. Both the themes and the framework guided the creation of a template. Keep in mind that when exploring the continuum of MPA reactions, one invariably deals with those that lead up to, during, and following given performances, in line with the thinking of Papageorgi et al. (2007). Although there were many themes that could be utilized to explore the complexities of Musical Performance Components (MPCs), it was decided that superimposing too many themes guided by the literature would possibly restrict the participants' responses and be counterproductive. An interview method was utilized in order to obtain an initial, detailed, and multifaceted

appreciation of the issue (i.e., MPCs). Specifically, a semi-structured interview was used because it is one of the most flexible of all research designs, allowing the researcher to investigate contemporary phenomena (Yin, 1981). The following template was developed. See Table 13. With each participant, I explained I would be reviewing their life making music, and exploring components of music performance, its intensity and duration over time. During the recorded interviews, I also took notes on a legal pad, subsequently transcribing the interviews in written form.

Table 13

Thematic Interview Template

Interview Themes & Sub-Themes
<ol style="list-style-type: none"> 1) Sets & Settings. 2) Experiencing Musical Performance Components (MPCs). <ol style="list-style-type: none"> a. Component Affects Associated with Musical Activity. b. Component Behaviors Associated with Musical Activity. c. Component Cognitions Associated with Musical Activity. d. Component Physiology Associated with Musical Activity. e. Component Spirituality Associated with Musical Activity. f. The Continuum of Reactions Associated with MPCs. <ol style="list-style-type: none"> i. Brief but Intense States. ii. Moods that Endure for Longer. iii. Dispositional-Trait that Can be Lifelong.

Data Collection

Observations were utilized to describe the many qualities of the musical communities where I work. Open-ended interview techniques were used to allow for flexibility in questioning, and collection of information from the residents. See Table 14, for a sample of the proposed questions. Note, extensive follow-up questions may not be

needed if responses to the initial open-ended questions are rich with information.

Table 14

Sample Interview Questions

Sample Questions:
<ol style="list-style-type: none">1. Please tell me about when you learned to make music, and how your skills develop?2. What kind of settings did you make music in?3. What type of audiences did you have, besides making music alone?4. People can have specific reactions prior to, and/or while performing music; can you give me examples of reactions you had at different stages of your life? For example, they may include increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences.5. Can you tell me about any reactions, such as, issues with lightheadedness, attention, concentration, or your thinking, you may or may not have had as a result of a pending performance, or during a performance? (i.e., possible follow-up question).6. Can you tell me about any reactions, such as, feelings of failure, inadequacy, sadness, anger, nervousness, disgust, amorousness, or happiness, you may or may not have had as a result of a pending performance, or during a performance? (i.e., possible follow-up question).7. Can you tell me about any behavioral reactions, such as, fidgeting, freezing up, angry outbursts, changes in usual behaviors, or avoidance behaviors, you may or may not have had as a result of a pending performance, or during a performance? (i.e., possible follow-up question).8. Can you tell me about any physiological reactions, such as, muscle aches, hyperventilation, increased heart rate, perspiration, or twitches you may or may not have had as a result of a pending performance, or during a performance? (i.e., possible follow-up question).9. Can you tell me about any spiritual reactions, such as, enlightenment, mystical fervor, sinfulness, spiritual euphoria, or transcendent? (i.e., possible follow-up question).10. People have described differences between their reactions for the days and/or weeks prior to a performance, reactions in the minutes leading up to a performance, reactions during a performance or after, and their general reactions about performances when none is pending. Have you noticed differences, and if so, how would you describe them?

Data Analysis

A template analysis approach was used to code and analyze the data for this study. Template analysis was entrenched in the field of healthcare (King, 2004; Crabtree & Miller, 1992). According to King (2004), template analysis was not a distinct, solitary well-defined research technique; rather, it was a diverse set of procedures for organizing textual data thematically to facilitate analysis. King (2004) suggested the template analytical technique evenly weighed a high level of structure for data analysis, along with a flexibility to adapt to the needs of an individual case. The approach Waring and Wainwright (2008) used, adapted from King (2004) and Crabtree and Miller (1992), created a more rigorous analytic approach for vast amounts of rich textual data.

Engagement in the data is an indispensable characteristic of an interpretive method. Specifically, the structure of the coding (i.e., a method for indexing text in relationship with themes) is flexible and inspires broad theme development from the richest data in reaction to the research questions. As King (2004) recommended, although coding of a hierarchical nature enables interview analysis at varying levels, too many levels may hinder analytical clarity. Following the interviews, the audio recordings were transcribed, the transcript was checked against the audio recording by an independent reviewer and deemed accurate, the transcripts were then reread several times, so that the template could be modified, adding and/or subtracting themes and sub-themes, as needed, based on the participants' responses. To accomplish this, I searched for configurations in the data that were regular and coherent (Stake, 1995). The major themes that were developed from the analysis are presented below, followed by a discussion.

Dependability and Trustworthiness. Jerome Bruner gave the first international guest lecture of this millennium, *Lezioni Italiane*, at *l'università di Bologna—Alma Mater Studiorum, Italia*, which was the first degree-awarding institution of the western world (Bruner, 2002; Reiss, 2016). The topic raised questions concerning interpretive meaning of language exemplified in literature, laws, and life, in general. He scrutinized the standing of storytelling as a procedure of composition. His notion of self-narration, in one's own words, as a process that creates a continuous version of oneself via storytelling, can be appropriately related to current problems in education and research (Bruner, 1991, 2002). According to Bruner, not only is there a need to be vigilant when examining each participant's self-report, but there is the added need for dependability and trustworthiness in the researcher's approach to the participant and their narrative.

While striving for methodological dependability and trustworthiness (Lincoln & Guba, 1985), I showed participants their interview transcripts for corrections as a member check. An expert in the areas of quantitative, qualitative, and mixed methods research was shown the template analysis results as a check on accuracy and reliability, and concurred while noting that some of the components could have also been coded in the broader category as affective [AFF]. Glaser and Strauss (1967) recommended collecting and analyzing data within a specific conceptual element or category, until the theoretical saturation point is reached. Similarly, Mason (2010) suggested that interview procedures continue until the interviewer becomes saturated. Failing to do so may negatively impact the quality of the research data in that all the various aspects of the phenomenon in question may not be asked about (Fusch & Ness, 2015).

Bertaux (1981) suggested researchers will notice patterns in the data that were likely present in the first few interviews. Guest et al. (2006) detailed several factors to be considered. For a homogeneous group, researchers usually reached their saturation of knowledge earlier in the interview process. More generally speaking, the less heterogeneous the group, the more structured the interviews, the less the complexity, the fewer the interviewers on the research team, and the greater the interviewers' experience, are all factors that reduce the number of interviews to reach the saturation level (Guest et al., 2006). I was able to interview 20 residents and compared the themes found in their interviews with those discovered in the literature. My knowledge of the literature, and my prior experience with other nonparticipants who continue to make music while residing in a nursing home, may have made me more hyperalert to detect certain patterns in the data. The reader will need to weigh the possibility of biased interpretation on my part when reading the themes I identified.

CHAPTER FOUR

Overview: Observations & Interview Findings

In this part of the dissertation, I present my observations of the nursing home environments, and list the available spaces for music. Then I present the interview data, mostly in the participants' own words, under the following thematic headings: (a) Sets & Settings, including audiences; and (b) Experiences of MPCs, including the continuum of MPC reactions. Finally, I conclude the chapter listing the frequencies of the thematic codes.

Nursing Homes

I carried a piece of paper and a pen while taking notes of observations when I was at the nursing homes during the period of time when the current study was undertaken. There were numerous locations at the nursing homes where I observed residents and staff engaged in musical activity (e.g. musical education, appreciation, learning, or performance). Most residents share a room with at least one other person with only a curtain for privacy. Music making can be formal or informal. Office space for music sessions is rare so one has to often negotiate between conflicting interests. Spaces for making music at the nursing homes may include: (a) Each resident's room; (b) An activities room; (c) A conference room; (d) A day room; (e) A smoking room; (f) An outdoor patio; (g) A dining room; (h) Elevators; (i) A room for vending machines; (j) The kitchen; (k) Exam rooms; (l) Rehabilitation rooms; (m) Bathrooms; (n) Shower rooms; (o) Nurses' stations; (p) Numerous hallways; (q) Between a pair of headphones; and (r) Within each person's mind.

All the residents have a radio and television, many have digital media, with or without headphones, and many have instruments. As a result, music is pervasive, at each turn, and to use Kassabian's (2013) term, it is *ubiquitous* in everyday life at the nursing homes. To better understand the cultural, ethnic, and national identities of the residents, one only has to pause at a doorway, listen, and engage the individual on the topic of music and their personal choices.

Major Themes

The review and analysis of the data was an iterative process. Based on the coding of the 20 transcripts, I focused on two themes that included the participants' descriptions of their experiences with MPCs during childhood, adulthood, and as seniors in-and-out of nursing homes. See Table 15 for the master code list. The environments in which they played music, including the audiences with whom they performed, varied greatly in some respects, yet remained similar in others. Various affective, behavioral, cognitive, physiological, and spiritual components were focused on, as were the continuum of MPC reactions. In this chapter I present the data, mostly in the participants' own words, under the themes of (a) Sets & Settings, and (b) Experiences of MPCs. In Chapter Five, I describe a more thorough analysis and discuss the responses by lifting the rich coded terms directly out of the narratives presented here, and into representative tables in a transparent way that enables the reader to see how I did it, while remaining true to the data and the individual narratives. Then I compare and contrast those tables with the tables that were derived from the corresponding literature reviews in Chapter Two. In order to accomplish these steps, I left the original descriptors, lifted from the coded

appendix of transcripts, in quotes.

Sets & Settings: Mostly in the Words of the Participants

In this section I cover the sets and settings (including audiences) engaged with by the participants. The verbatim transcripts from all 20 participants can be found in Appendix 1. Codes are included with the raw data in the appendix. For the following examples, materials selected to portray the differences and similarities of sets and settings across participants are grouped by age categories, including: (a) Childhood Years Learning to Make Music; (b) Adulthood Years Continuing to Make Music; and (c) Senior Years Making Music In-and-Out of Nursing Homes.

Childhood Years Learning to Make Music.

Mr. A was raised as a traditional Roman Catholic, in a multilingual home environment. His “earliest memories were of my mother signing to me. She sang in a variety of languages.” He reported his mother used to tell people, “I speak and sing in 8 languages, English, French, German, Italian, Spanish, Portuguese, Russian, and Body language, some call it dance!” At a young age, Mr. A learned to sing along with his mother in all of the languages, though his proficiency in Russian and Portuguese never took hold. He claimed his “grasp of Portuguese, Russian, and dance was never as advanced. I don’t have as many memories of her dancing around the house or singing in those other languages.” He said his mother would sing with him in all different situations for various reasons. As examples:

After saying our prayers before going to sleep we would sing; but if she picked me up while I was crying after falling off my bike, she would still get me singing

along. Singing always seemed to change the mood regardless of how good or bad things were to start.

As a Catholic, Mr. A became an altar boy at a time when the Mass was in Latin, and he had to, “learn all the prayers, and at high Mass sang our prayers in Latin,” which he just memorized without any understanding of the meaning at first. With time, Mr. A was able to, “deciphered what the prayers were saying.” As he grew older, and entered high school, his interests seemed to shift and he “joined the choir at Church, it was coed.” In fact, Mr. A “met my future wife in choir, though we never dated” until returning to their hometown after attending “universities in different parts of the country.” His memories of those years in the Church choir were strong.

Mrs. B was self-taught, “No music lessons for me ... my friends and I would just put 45s on the record player and take turns strumming a guitar one of us had.” As she recalled, she was not good at playing the guitar. In contrast, Mrs. B realized she “could remember the words to all the songs better than anyone,” so she became a singer. By the time she was 13 years old, Mrs. B “joined a rock band that performed in local pubs.” Apparently, she was permitted to perform in the establishments, “As long as I didn’t try to buy alcohol.”

Mrs. C was raised on the edge of Mexico City, “not in Mexico City exactly, but it wasn’t the suburbs either.” At that time, her “father played guitar and performed in a Mariachi Band, mostly at cafes and neighborhood bars” and it had a lifetime impact on the music she learned to play. She started taking guitar lessons when she was nine years old. Her father’s “poker buddy ... lost in cards ... but didn’t have enough money, so he

paid off his debt” with the lessons. Mrs. C conveyed how the lessons, “were in the afternoons in our living room, and [her instructor] would pour himself whiskey from my father’s cabinet ... It always made me anxious and affected my learning.” After a few years the lessons ended because Mr. P disappeared, and no one knew what happened or how to reach him. When she was a little older, Mrs. C started going to the cafes and bars with her father “when he played with the band ... At the breaks various members of the band taught me the songs they were playing.” She explained how she would try and find sheet music for the songs, but was rarely successful, and if she did find it, she would practice with it but, “they wouldn’t let me use it when practicing with them.” Some of the band members were more demanding than others, and even though one member, in particular, “was extremely demanding and expected a lot from me ... but I think I learned more from him as a result ... he was always professional and stoic” in his approach. As Mrs. C started to enter puberty, some of the other band members made her nervous for other reasons. They “seemed more interested in flirting with me than teaching me music. They started to get familiar with their hands, and I don’t mean with the instruments.” As Mrs. C developed her musical skills, she started playing for the café crowd:

I guess you could say I was a professional musician by my young teenage years because I was good enough to make money playing at cafes. I did not want to discourage tips but was conflicted. I loved to play but did not care for all the attention I was getting from older men.

Mrs. C also had some other, rather different experiences practicing and performing music in her younger years as part of an all-girl Catholic school choir. “Sister M was mean, and

she would hit us if we did anything wrong. During practices she would walk up and down the rows listening to each one of us ready to attack.” She explained:

I guess some would say it was traumatic. It had a lasting impact remaining with me as I thought about her during the week prior to a practice or a performance. Of course, the performances were not as bad as the practices. She wasn’t able to walk up and down the rows, making it harder for her to pinpoint anyone’s mistakes accurately, and she couldn’t punish us in front of the audience. However, that did not stop her from punishing the entire choir at the next rehearsal if she thought our performance was below her expectations, so when I say the performances were not as bad as the rehearsals, I do not mean they were good.

Mrs. D grew with 2 parents, sisters and a brother. Their parents were raised in the Lisbon area of Portugal and loved Fado music. As a result, “they listened to Fado on their old phonograph all the time. My sisters and brother, and I heard it day and night.” Mrs. D’s mother sang to the phonograph music, while her “father played his guitarra portuguesa.” Mrs. D did not have formal music instruction as a child. However, her parents were well versed in the Fado traditions, and her mother taught her to sing Fado, while her father taught her to play Fado on the guitarra.

Mr. E recalled, “Always banging on things to make music as a child.” He viewed the activity as “A great way to get out any frustrations” he encountered. During his years as a youngster, he always banged out a beat, “Whether alone or with friends, at home or out and about, making music.” Different people and different situations could cause him to “feel more relaxed, or more stressed, or even just average” but drumming always

helped.

Mrs. F was raised in Galway Ireland and reported, “My father played the fiddle. He taught me everything I know ... He held it between his hand and his bicep rather than under his chin ... I sat with it in my lap and played it like a cello.” She remains thankful for the skills she developed. Yet, it wasn’t easy. She acknowledged she was anxious around her father:

I was always on edge around him, no matter what. He was extremely demanding of me in all areas of life. Actually, I was generally nervous all the time and would be nervous playing for others, too, back then. But I was more nervous when he was there. He expected so much of me, but never treated me badly, so I never really understood my reaction.

When Mrs. F practiced in other situations, such as when she practiced with girlfriends without her father around, she was significantly less anxious.

Mr. G was not introduced to making music until his high school years when he decided to “Attended the first meeting of the band with some friends. The band leader asked us who had some experience with music. Since I had none, he decided to give me the clash cymbals.” Mr. G found the band leader to be most accommodating in that he “showed me how to hold the cymbals while marching, gave me a crash course in how to play them, and in the beginning, he always signaled me when he wanted me to join in.” The band performed at various school functions, but they “mostly played at sporting events. I was never good at sports, so the cymbals helped me become part of the group. By my junior year we were a top-notch band.” Membership in the band was part of my

identity. Performances had a party atmosphere.” His experience with music in the high school band helped him persist with it as he got older.

Mr. H had grown up near the beach in Southampton, and his “parents were very social, always throwing big parties.” The large parties were always “catered with a bartender making drinks. The less formal parties were almost a daily happening on my Aunt A’s porch overlooking the beach a couple of blocks away. She wasn’t really my aunt, but she wanted me to call her that.” Mr. H’s career as a drummer was set in motion on his ninth birthday when “My father’s friend, Capt. B, gave me my first drum kit ... Capt. B and my dad were always joking around, pulling pranks on each other, and he bought me the drum kit, just to drive my father crazy.” They had organized a large birthday celebration with “activities for me and my friends while the adults did what they do ... There were crowds inside the house, and outside around the pool.” Mr. H fell in love with drumming at first sight and quickly became the entertainment for the party, “It was a professional drum kit adjusted to my size. It was the most gorgeous set of drums I had ever seen and went ape shit with it all day; well, I let my friends take turns, too.” The whole neighborhood could hear even over the sound of the party.” He did not recall any negative experiences from those very early beginnings of his drumming career, “Other than not wanting to stop when my parents would tell me to do homework or go to bed or to just give it a break.” Actually, his love for drumming continued and carried him through the stress of drumming lessons, but he “couldn’t sleep absorbed thinking about a drumming career [like] Mr. W My father would always chastise me saying the world doesn’t revolve around drums, but for me it did.” Mr. H also joined the high school

marching band. Other than learning the choreography, and staying in formation “It was so easy compared to Mr. W’s lessons. The drumming requirements were basic.” At least, as he explained, he did not worry about musical performance issues though he did experience some relationship issues with girls and other friends. Those problems were “totally separate from the drumming ... except to the extent that music helped me cope with personal issues ... The marching band was so easy I could march and drum perfectly while totally engrossed” worrying about relationship problems. He reported:

In the summer between sophomore and junior year I started played in a few hard rock bands. I really enjoyed making money playing at parties. I wouldn’t call it professional, but I did make money. I was better at jazz but that wasn’t the music people wanted to hear.

Mr. H was proud of his youthful accomplishments drumming; “people were impressed” with him.

Mr. I was raised in a small tightknit Brooklyn neighborhood, and started playing music when his parents gave him “a toy xylophone for Rosh Hashanah to ring in the new year.” It wasn’t long before he “started going to the music store about three blocks away.” He did “odd jobs for people and started saving up my money to buy various books on how to play the xylophone.” The shopkeeper had a professional xylophone in the store, and he would give Mr. I the freedom to “play it after school and on weekends and holidays.” Once school let out, he “would run to the shop with excitement.”

Reportedly, the shopkeeper gave Mr. I a job “sweeping up and dusting to earn some cash, most of which went right back to him in various purchases. He also sold 45 records and

albums, with a great Askenazi klezmer section just perfect for the xylophone.” Mr. I had a record player he bought for his bedroom, and “spent hours listening and playing along” to the klezmer records. Then:

A few years went by without anyone buying the profession xylophone so I asked if I could put a deposit down and pay over time. We agreed on a price and time line ... When I finally paid off the balance, he delivered it our apartment.

Mr. I’s parents were proud of his “industrious approach to buying it, but I sensed they preferred the toy xylophone, which wasn’t as loud ... Knowing they weren’t also ecstatic about it caused some annoyance, but they rarely complained.”

According to Ms. J, she did not start playing guitar until the sixth grade when she “asked my parents if I could get a guitar and take guitar lessons like a couple of my girlfriends were planning.” Her parents were supportive and gave her the money so she could pursue her plan. Ms. J had the same teacher as her friends:

Though we never had lessons together, yet we progressed through the song book at the same speed so we could practice together ... We were really close. If one or the other of us had stress about a particular assignment, we met during the week and helped each other, demonstrating the fingerings ... It prepared us for our lessons and carried us through the week. Although our teacher could be demanding at times, that stress was always overcome by our sisterhood.

The seemingly perfect time in life only lasted a year because for junior high school “we went to different schools.” Looking back on the experience, Ms. J concluded it was the friendship that “sustained me more than music. I was quick to replace it with babysitting

jobs and my newly developed interest in boys. Music just wasn't as rewarding those years ... I stopped taking lessons and stored my guitar in attic."

Then, after a couple of years, the "sisterhood" was reunited when the three attended the same high school. They "floated the idea of developing a band" and Mrs. J went rummaging around the attic for her guitar and found the "neck had warped and the strings were lifted off of it. The seam separated and it wasn't worth the repair cost ... so I bought myself an electric guitar with a little portable speaker." They were a trio with two electric guitars and a bass and called themselves "The Three" M's. "We had books called fakes. They included the fingerings for all the popular songs, mostly just chord progressions ... and I really looked forward to when we would jam together." After graduating, their popularity grew, and they had numerous jobs playing at local bars.

Mr. K came from a family that did not value playing an instrument, so he did not consider music lessons, but in high school he started to play an electric bass. "It was a rental in that I couldn't promise my parents I would persist at it. Indeed, there were a lot of occasions when I thought I was ready to hang it up."

Mr. L played a 3/4 violin from an early age and attributes much of his success to the school he attended:

A lot of parents picked the school because of its music program, as did my dads ...

I moved on to a regular violin in junior high, and then switched to the cello in high school. By college I was playing the Contrabass ...

As his skills gradually improved, his music improved, but he did not notice significant changes in skill as a result of changes in his mood. Of course, he did not recall any bad

moods during those early years, but that all changed in high school when life became more stressful and competitive:

I was still in the same school with mostly the same classmates, but the high school division was different in other ways. There was a lot of pressure to excel, with a focus on getting into a great university. People started participating in different activities, not because they were fun, but because they thought it would look good on a college application. It was much more competitive. The teachers were different from grade school. They led the push for excellence, even the music teacher, as if their jobs depended upon the students getting into the best schools.

During his young adult life at Princeton, Mr. L was eventually able to develop some coping mechanisms, which I will review in a subsequent section, below.

Mrs. M was introduced to a toy harp as a young child. She had seen one on television. When her mother took her to Macy's to see Santa Claus, she asked for one. Santa said, "I'll try my best, but there are no promises." Her mother was in earshot, and she was happily excited Christmas morning:

I started playing with the harp straight away ... In retrospect, I think I must have driven my mother nuts at first. My father did not seem phased by it. He was a rather non-reactive sort. Our dog used to run into the room and start howling whenever I played. I loved the company. I thought she was singing along, but she was probably trying to get me to stop.

After she grew out of believing in Santa, her eyes were set on an Irish harp. Her Irish mother, who migrated to the United States right after graduating for college in Ireland,

might have had something to do with that decision. She explained:

Once she realized I was hooked on the harp, she started to teach me how to play more properly. I don't think she ever played the harp before I latched onto it, but with her music background and her desire to encourage me, she learned it with me ... we would take turns sharing the toy harp as she instructed me.

Mrs. M loved to "turn the radio on and just play along" as best she could. Her mother would sometimes interrupt her jams with the radio, and "show me the scales and certain progressions that she made me practice and memorize. I did not fully appreciate it, at least not back then." However, the more Mrs. M learned from her mother the better her radio jam sessions became. In grammar school, her parents purchased a miniature Irish harp. Her mother would use the toy harp, and they played duets. She "really enjoyed those days ... memorizing pieces in prep for our duets started to come easily to me." Mrs. M "also made friends at school and we would arrange play dates and each other's homes. Some of my friend played instruments so we would sometimes jam."

Ms. N was raised in a musical family in that her mother was a music instructor and started her down a path towards a musical career from a young age. Ms. N's mother "was always introducing me to music, and teaching me things about music, even before I started school, but I didn't decide on cello until grammar school when I was ready for formal instruction." Ms. N suffered through that experience for two years. She was amazed at the "positive impact" her new music instructor had on her, while her instructor opened her up to new horizons:

I reached out to other students who were learning an instrument, and we would get together and play music together. We all made mistakes on a regular basis, but no one seemed to mind. We would just try it again. The joy of learning even outweighed the end result. Performances were also fun, but most of the efforts went into practice and just playing together. I felt good before during and after practices and performances.

In middle school, Ms. N joined a band that had a couple of performances each year. The band would meet every week for a formal practice session. “I made many friends through the band. I liked it more than any other activity. We had a great time and would go out afterwards the way they do on closing night of a theatrical performance.”

Mrs. O was an only child who did not pursue music until she was a teenager and became interested in the harp. Her “mother supported my decision from the start. She was always talking about how beautiful the harp looks, and how angelic the music sounds.” However, Mrs. O had “a darker side, was devilish and was into things like Tarot cards. It was long before being Goth was popular, and before the Goth music subculture came out of Britain in the 80s.” Mrs. O started by practicing in her room, which she enjoyed, but “I didn’t know anything about technique, or much about music other than what I liked, so I didn’t have an objective criteria to measure myself against.”

Mrs. P grew up with a player piano in her basement, and a cabinet of music rolls. She would “hit the same keys as they depressed, trying to memorize the fingerings ... When the roll finished, I would try and reproduce the song by repeating the fingerings.” She felt like the process was long and arduous, “I wasn’t a fast learner so I don’t know

how I marshalled the determination to persist, but I did ... I felt frustrated in the beginning.” Eventually, with persistence Mrs P was able to memorize a repertoire of a few songs and “felt confident.” She planned:

Get-togethers with friends who had a piano in their house, even if they didn't play and when the opportunity presented itself, I would mention I played, sit down at their piano, and play a couple of tunes. Once I finished all I knew, I would act like I had my fill of playing and get up from the piano rather than explaining how I learned the pieces. They were always impressed, and it made me feel good. I never had any real music lessons.

However, as soon as she sat down and started to play the pieces, she knew she started to feel good. Mrs. P always felt comfortable shutting down any subsequent requests to play something else.

Mr. Q started private lessons playing violin in seventh grade, not because he wanted to learn to play music, but because he and his mother thought it would look good on application to college preparatory schools. He hoped that his desire to get into a good school would provide the motivation to excel with the violin, but it didn't:

Once I got into prep school, I stopped taking lessons. Every now and then I would pick up my violin and try to play along to a classical radio station. I liked that, but not enough to start practicing again.

Mr. Q opted out of any music classes during preparatory school, but admitted he still listed his private violin lessons that started in seventh grade, on all his college admissions paperwork.

Ms. R grew up with a piano in the house that no one seemed to use. “When I was old enough, I started banging on it and a friend taught me chopsticks.” As she got older, she pressured her mother to have the piano tuned, and by tenth grade she negotiated for lessons. “My piano teacher came once a week ... I never understood why some people felt overwhelmed by all the required practice, for me it was a pleasure.” Ms. R acknowledged that she was prone to anxiety and dysphoria when taking academic exams, but she did not think it ever happened as a result of music lessons or performances. “I don’t know why it was different, but I just wasn’t bothered by my music teacher’s demands. I always accomplished whatever she expected of me. I took pride in my skill.” Ms. R was diligent about her lessons throughout high school but did not have much access to a piano for several years that followed.

Mr. S grew up in the “only Jewish family on the block, in a mostly black neighborhood.” He had a small bedroom next to his parents’ bedroom, and he had a window to the back, where he could hear the conversations of neighbors calling out to each other across the courtyard. He played the recorder as a little boy:

I did not have a good sense of whether I was good or not. I did not seem to care if I bothered anyone or not. It wasn’t very loud, I played in my room, and no one complained. I just had fun making interesting noises, if not music.

With time, Mr. S’s father rented him a saxophone, and arranged for music lessons at home, but what really bothered him was that the neighbors heard everything that happened in our home, and he was heckled about his saxophone playing and his parents’ loud love making:

We were loud, me with my saxophone, and my parents with their activities. J, ... would heckle me when I would play, calling out the window, and at school he would make fun of my saxophone playing, and worse he would make jokes about my parents because my mother was a screamer when they made love and everyone in the neighborhood could hear them.

Mr. S constantly worried about trying to avoid J and his gang, to and from school, sometimes running home early to practice before J was there to heckle him. His father demanded a lot from him and would ask to hear his progress with the saxophone, which unnerved Mr. S. In contrast he appreciated his music teacher and looked forward to the lessons in the living room, in the front of the apartment and away from the back window.

As time went on, the heckling:

Got worse before it got better. J and his gang of delinquents decided to jump me on the way home one day. They played keep away with my sax and its case, damaging them before it was over. It was going to need professional repairs, so I had to tell my father. I did not know what to expect.”

To his surprise, his father had very detailed advice on how to handle things by challenging J to a fight even if he was going to lose:

He told me ... I just had to face him down and get in a few good punches. Then he gave me a quick boxing lesson and warned me as soon as I knew I might not be able to fight any longer I had to save the energy to charge him grab J around the middle straddling his right leg, lifting up my right foot and slamming down with all my strength crushing his left ankle so it would buckle out and break. I

promised my father I would do exactly what he told me, and I broke his ankle, when a teacher intervened J said it was an accident. That night I looked really bad, and my father told me, I had to go right up to J the next day and tell him I was sorry I broke his ankle, as if it was an accident, and tell him he surely would have kicked my ass even more if that hadn't happened. We actually became friends after that ... [and] he stopped heckling me.

Mr. S never stopped feeling “embarrassed” about his “parents’ sex life,” but he gradually “started practicing in my room with excitement. I actually enjoyed practicing and felt good throughout the week.” By the time he was in high school Mr. S joined a band, and: “We played the Motown station on the transistor radio and would jam along to the music.”

Mr. T grew up on a little farm in the Virginia backwoods. His father raised him to fish, and hunt game and fowl. His “mother was a great cook and could prepare any bird like you were in a French country restaurant” and it was his job to learn to “lure them in by learning their bird calls.”

My father was tuff so when he told me to study bird calls, and to remain quiet when we were hunting birds until I proved to him my calls were good enough, that was all the motivation I needed. Even though he was strict, I don't recall ever getting nervous about it. I loved bird calling and was diligent about learning ... I never did it for a trophy or a stuffed bird on my mantel. I used a call whistle first but eventually learned to make most of the calls myself.

In High School Mr. T learned to play the bugle and various horns that are not keyed. He felt his music teacher, though talented as a musician, had much to be desired as an instructor.

He wasn't very approachable, and when I would get up the courage to ask specific questions about playing the bugle, he would just refer me to books and other resources without offering any concrete answers or showing me on the bugle. I just didn't like him or the whole process of studying under him. I practiced a lot on my own at home, but I cut a lot of school. I just didn't like performing for him; he never played with me, and his critique was of little use to my learning. It was hard to sit still, I just wanted to get up and leave.

One takeaway was that Mr. T learned to teach himself how to play the bugle, with all the available resources he discovered. "I did continue to play on my own."

Adulthood Years Continuing to Make Music

Having been raised in a multilingual home environment, Mr. A decided to study languages and opera in college. He recalled, "Opera classes were challenging. Singing was beautiful but challenging in French and Italian. I didn't care for the sound of German as much but strangely enough it was easier for me to sing." Following university, engagement in musical activity dropped off. He returned to his home town, married the girl he had met in Church choir, was hired by the United Nations as a translator, commuted into work and raised a family:

I haven't performed since college other than at family gatherings, and [Church]
... I guess I could have joined the choir but by the time our children went away to

college and started careers, the choir started singing folk Masses with guitars and it didn't appeal to me.

Other changes in the Church also impacted Mr. A, which are dealt with in the next section below.

Mrs. B did not attend college but entered young adulthood as a teenager, "Living on my own, sharing an apartment with friends, getting enough gigs to pay the bills." As much as she enjoyed her independence, she needed work:

I just wanted to sing for my supper, so I took most of the initiative to go from venue to venue and negotiate gigs ... I worried, not about my performance, but about how many people would show up. If we didn't have a good crowd that liked the music, it impacted the take and future bookings.

Mrs. B did not want to be forced to get alternative employment to offset her earnings as a musician like others had to. She wanted to alter the sets they played to suit the different appetites of the different venues:

Going into meetings with the different bands where we planned out the music for each performance was the most stressful. I was agitated and would try to prepare my arguments in advance, feeling nervous, worried about push back and once in the meeting I was still concerned but would get verbally aggressive if it started going against me. Then before the performances I worried and felt physically on edge before the doors opened.

Mrs. B also explained how she would go on group outings, "where we would practice. It could be the beach, parks, the mountains, I remember once when the echo turned our

music into a fugue. The music always seemed better to me when we were out communing with nature.” After many years working as a musician in various bands, Mrs. B married, settled down, and had 5 children. As she described it, “I was a stay-at-home mom, didn’t need to work, and had the luxury of raising my children myself. Her children studied music more formally than she ever had, and her “youngest daughter taught me to read music, and I started to study it more” a skill that helped after her nest was empty, as will be addressed below.

As Mrs. C matured:

I grew into a very strong young lady, I knew just how to get a man’s attention, if I wanted it, especially while playing my guitar. They were exciting times. When practicing for a performance, if I knew someone I liked would be there, I included my approach to him in my practice. Of course, sometimes the excitement was mixed with anxieties, but they did not outweigh the good times.

When Mrs. C was almost 30 years old, she “moved to Greenwich Village ... when folk music was all the rage. We were all hippies in the 60’s, with Bob Dylan as our idol.” She made friends and they “played in Washington Square to make some money from passers-by, but it was comfortable, like our public living room ... sometimes we would play in small gatherings at various apartments, which was usually a lot of fun.” They were all “against the Vietnam War,” and liked to “drinking coffee, beer and wine, smoking cigarettes, and pot, and of course our slogan was make-love-not-war, which we did a lot.” Mrs. C enjoyed her Bohemian life of music and friends: “Generally, I was happy making music and being with my friends. I tended to have good regard for them and myself. Life

wasn't all roses; I did have some bad experiences around some people." Mrs. C found that she could manage stress through alcohol or drugs in moderate amounts, but some people would get very intoxicated, and angry or jealous, "which changed the mood. Free love wasn't always free, but 9 times out of 10, it was really fun." With time, Mrs. C "met my hippy husband ... and we gradually started to lead a more conservative life. I guess that was a sign of maturity, or maybe just getting old. We moved to Long Island and raised a family." She did not play much when the children were young, but she "got back into it and started exploring Spanish Celtic music, mostly in the comforts of my home." Mrs. C sounded a little melancholy describing how her children visited less after having their own families.

Mrs. D did not have much to say about her adult years with music, singing Fado and playing the guitarra portuguesa. "With my children I always felt like I was passing down my cultural heritage to them, of course with friends, it was all just friendly and entertaining." During that period of her life, she mainly performed at home. Late in life, Mrs. D took private music lessons at the Brooklyn Conservatory, but not until she was a senior adult, so that will be dealt with in a following section, below.

Mr. E served in the Korean War, enlisting in the First Cavalry Division at a young age when he set out a beat on anything available:

I would bang out a beat on something, but I had no strict musical education to speak off. The only negative experiences were if a senior officer complained and ordered me to keep the noise down, but I always complied, often just banging out

the beat in my mind so only I could hear it. Any stressful feelings were always short lived.

After his military service he attended an engineering program for his bachelor degree on the GI bill, and "... took music theory and drumming courses as electives. That was the only time I experienced anxiety related to musical performances." Eventually he started a sheet metal company, and "... decided to fabricate my own set of different size steel drums or steelpans as they are called. Tenor pan, double tenor pan, double seconds pan, double guitar pan, and a cello pan." Mr. E often played with friends he invited over for barbeques. He met his future wife at one of the events and shared that: "She had some piano lessons when younger and still played a little." They had five children together they all studied music at some point in their lives. He explained:

My oldest son picked up the drums, though he preferred a drum kit and rock-and-roll over my Caribbean holiday sound on the steel drums. I enjoyed my wife's, and our children's music making, but never really played along with them. When playing at home they would ask me to join in, but I avoided it.

Mr. E noted that their styles were different than his, "ones I liked to listen to, but not play myself. To tell the truth, they were all better musicians than me, and I did not think I could compete."

Mrs. F did not take music lessons at Trinity College—Dublin or study it academically, but she did play music with her friends during her four years there before moving to the United States. She explained:

New York City had a vibrant Celtic music scene, and I blended right in. I started carrying my fiddle around whenever I went out to the pubs and usually joined in at sessions. It was exciting, I loved it, and it became a routine; after work each day ... Maybe it was just getting up the strength to leave home and move to the land of the free. Fiddling would always make me feel content, happy, relaxed or joyful.

Mrs. F enjoyed playing at home, too, and stated: “It made for a pleasant atmosphere around the house,” but her oldest son did not like it and would always exit to his room, where you could find him with his headphones on. Mrs. F summarized that “Music was a great pleasure for me and my husband after the children grew up and moved out on their own.”

Mr. G joined the college band, but complained about his band leader, who he did not care for. Mr. G complained about the rigorous rehearsals that rivaled the sports team practices, not to mention the homework assignments. Reportedly, the band leader was:

... critical of anyone who failed to meet his expectations. He would call us to task in front of everyone ... My wife still likes to see me in a uniform, but she was never musical herself and my son is more like her. Later in life, I debated joining with the ceremonial pipes after picking up the drums, but they mostly play at funerals and that is just too depressing ... They can play at my funeral, but I don't want to hear it, and avoid them as much as possible.

Mr. G created his own music studio in the basement with a full drum kit, but it was too loud for his wife to endure. He explained:

... it was driving my wife nuts ... it was a vicious circle. Playing vigorously helped me manage stress. My wife would ... yell a few choice words down the stairs ... Eventually, I got smart and hired contractors to build a sound studio ... [I had to] double up the layers of insulation. I was so happy with the outcome and from then on drumming became my solitary respite from stress in life.

Mr. G's wife was appreciative of how receptive he was to her need for peace and quiet that: "Our love life even improved. No uniform required!" In summary, Mr. G: "... loved the drums, I would look forward to playing them, and always felt great afterwards."

Mr. H indicated that he attended music school following his years in high school.

He indicated that the:

... drumming was always good, I felt great, people were impressed, and I was happy ... The only issues I had in those years had to do with friends and girls, completely separate from the music, except to the extent that music helped me cope with personal issues.

Although he found music theory to be extremely boring, Mr. H discovered he was very good at it. He proudly announced: "I had all A's ... I always came up with a sound analysis [and] also excelled in conducting." In contrast, "Composition was another story. All my insecurities came back. I felt weak, lost my appetite, and would get an upset stomach, especially when preparing for a timed examination." Directly after graduation, Mr. H started his professional career as a drummer, "... in some really famous bands including ..., ..., ... and. I made a lot of money quickly, but I would spend it just as fast. It was mostly hard rock." He also played in small jazz and supper clubs. Mr. H was

gratified by his success, but he acknowledged setbacks. He “went in and out of detox several times between my second and third marriage. AA and NA meetings helped ... I was in a better place when I met my third wife.”

Mr. I reported “When I was old enough to go out to clubs with friends, my musical tastes expanded, and as people got to know me, they asked me to come to practices.” He did not give up his:

Klezmer sound but we started blending it with their styles. I sought out and played with punk, rock-and-roll, afrobeat, and jazz bands, not to mention some traditional Jewish band doing weddings, bar mitzvas, and other ceremonies. I thought Frank Zappa was the best and I started expanding my percussion skills with hand cranks, sirens, Maracas, triangles and gongs.

Ms. J indicated that “By the summer after high school we were all 18 and started playing at local bars.” She was really only looking to make a few dollars and have some fun and had not anticipated the kind of success she would enjoy. She said the band:

... went to community college together on a part-time basis and continued to play at some local venues. The groupies remained loyal and became friends. We actually took a couple of music courses and composed our own song. After that step in our development, I didn’t feel like an imposture anymore.

Ms. J became discouraged when the band eventually broke up, and she: “... put away my guitar for a while ... Then I started playing again. Just by myself at home. Marriage was never my thing.”

Mr. K revealed that while at university:

I made some cash on the side in various jazz bands and started to take some music electives. I also bought an upright acoustic bass. I met people who loved jazz just like me, and that made a big difference in my life.

Mr. K continued to go to jazz clubs throughout his life sometimes performing, but other times just listening and appreciating the music with other patrons. Music brought him and his wife together:

I met my wife in music class and she loved jazz almost as much as I do, though our children were more like my high school friends, hooked on popular music and never did the work needed to learn to play an instrument ... My wife and I were dating by the time we decided to take jazz history together.

In his adult years, one of Mr. K's "favorite spots is on the back porch overlooking the garden, it's my designated spot to smoke cigars, too. As long as I have a cigar burning, I am invariably left alone."

Mr. L disclosed that he struggled with anxiety for the first year at college, but found help from a counsellor, and also met his future wife:

I actually met my wife at Princeton, we were in the same eating club our last year ... Mrs. L ... loved music and played the piano, so we played together in all sorts of situations, at home, with friends, even at a local pub. It was like childhood all over again, especially after we started having children and teaching them to play instruments, an unconditional love for making music, always joyous, and sometimes more than others.

Mr. L could not pinpoint what aspects of the situation impacted how much he enjoyed

music making, or which ones caused other affective response, but he did notice some variability.

Mrs. M reported how she searched the different pubs listening to sessions before making choices: “Once I found some Irish pubs that had regular music sessions I liked, I started practicing and joining in.” Understandably, there would be songs she was unfamiliar with, and she “... would sit it out or go to the bar and order a drink.” Mrs. M recalled that if she “... hadn’t memorized the wrong version of *Egan’s Kerry Polka* I would have never met my husband having a drink at the bar when I ordered my Guinness.” As she reminisced, Mrs. M noted how her “... anxiety quickly turned to excitement, and that carried us through 3 children and 5 grandchildren.” She explained how her “... husband didn’t play an instrument, but he loved listening to it.” As for her family:

My son played the recorder at a young age. As I recall, they taught him it at school, but he never played after elementary school. My daughter’s both liked to play with my harp and eventually took lessons. The younger one quickly moved onto the guitar and rock-and-roll. My older daughter followed in my footsteps and would play with me. I didn’t press them to practice the way my mother did. I left that to their instructors.

Mrs. M stated “Music was a relaxing positive aspect of our family life.” On occasion Mrs. M and her husband went “... out to a pub for dinner and listen to music but I became more like him, enjoying listening to music without a strong need to join in.”

Ms. N conveyed that overall, she had fond memories of Oberlin College &

Conservatory. Although, as one might imagine, there were some difficult challenges she had to face. She summarized as follows:

Looking back on my four years at Oberlin the only time I found school a little stressful was the result of one teacher assistant. I don't think he liked his position, and he took it out on all of us. I can't think of anyone who liked the way he treated us. I don't know if anyone brought it to the teacher's attention but they side-lined him by the middle of the academic year.

With respect to her career as a professional cellist, she "... focused on auditions for various orchestras and continued to do so for a year and a half following graduation. I had some long runs, over a decade each, with some very important orchestras."

She reflected on her three long runs with top orchestras. After a decade with A-orchestra:

Various options would open up from time to time. I played with the B-orchestra, and then the C-orchestra for over a decade each before retiring. The different music halls and audiences did impact me as a musician, but most were in the same way. They motivate me. The music might resonate differently in different halls and our communication with the audience varies. It is sometimes more glorious than others.

Mrs. O was a history major in college, but also took harp lessons, and studied music, including music theory. She described how she "... started embracing my angelic side that my mother always associated with the harp. As an adult, I always played romantic era pieces for her, and from her perspective," which she contrasted with her high school years when:

I just didn't really know how to play ... which actually had a lot of truth to it. I came to objectively believe in my musical skills, which is very different than the subjective belief I had as a teenager. The harp was always a major part of my life, I enjoyed it the way my father enjoyed his peace and quiet, I just had a better understanding and more mature appreciation after studying music academically at college. It carried me through my entire adulthood, marriage, motherhood, even grandparenting.

Mrs. O was a history major but "took harp lessons for elective credit each semester, plus a few music theory classes my instructor recommended," and later in life she joined her local theater group and orchestra.

Mrs. P acknowledged she continues to memorize what keys to depress on the piano, but has been moving beyond rote muscle memory after practicing scales and embracing improvisation:

I still have the player piano in my home, but several years ago, my daughter bought me an electric piano that also works like a player piano. The keys don't actually depress as the notes are played but they light up, and there is software so you can see the musical notes on a score as the music plays. They also have scales that I started playing and subsequently improvising with.

Mr. Q reported that "Much later in life when I picked [the violin] up again, that time it was my own decision. I practice by putting the Carnegie Hall channel on the TV and improvising along with my instrument." He explained, "It is my answer to the old question of how to get to Carnegie Hall. I can imagine myself as part of the orchestra, a

poor man's version of virtual reality." Mr. Q also reported that, "I mostly play at home, in fact for the most part, I play exclusively at home, but not always alone, and I like it, well enough either way, though I am more at ease when I am alone, it's enjoyable."

Ms. R "never married and did not have any children" and she estimates that her musical skill remained about the same most of her life until she challenged herself with some "evening classes at Juilliard about ten years ago. I had to audition to be accepted into the rigorous piano classes." She believes her "playing the piano has been brilliant ever since that training" and she is more relaxed as a result.

Mr. S admitted that "In college ... I studied music. Although the teachers were great, the teacher assistants were downright evil and graded like they wanted everyone to flunk out," but he graduated:

After college, I don't know why, I just stopped playing music for a long period of time; I did not read much for a few years either. I guess I had my fill during college and needed a break ... I started playing again after we had children ... I would play at home with family around, outside with farm animals around and home at dinner parties with friends around.

Mr. T indicated that he did not care for college, "they had a lot of required courses and I never got to take music before discontinuing my studies. After dropping out of college, I got a job shoveling out horse stalls." He took pride in his work, but aspired to greater things:

Slowly, I went from a stable hand participating in hunts, to moving in more affluent circles. I was getting invited on fox hunts, not because I was part of that

social group growing up, but because I could ride and play the bugle, even while going over a jump

Mr. T acknowledged he had always “generally enjoyed life,” but emphasized how meeting his future wife: “was the greatest thing that ever happened to me.” She was also an equestrian and rode horses since childhood. He went on to explain:

We have three daughters and they all ride, play an instrument, and have become successful in their own right. Then there are my grandchildren but that’s not why we are here. You can listen to me brag about my family any time ... We would play together and separately, at home and at events.

Senior Years Making Music In or Out of the Nursing Home.

Mr. A reported he started attending Latin Mass again, after Pope Benedict approved it, but when “Pope Francis recently decided to relegate the Latin Mass to the basement where they conduct the AA meetings, refusing to let it be conducted at the main altar,” Mr. A was disappointed. He recalled seeing “a stranger coming to the Latin Mass and taking notes during it. He looked like the typical G-man in a trench coat. Maybe I was just getting paranoid, that would be for you to assess.” In any event, Mr. A was stressed about it and often skipped Mass entirely, as a result. Mr. A also talked about solitude, and music at the facility:

When alone out and about, especially in the car or going for a walk in a deserted area like the woods, or on the beach off-season I often sing, even in the classic shower situation, but only if no one is home ... Of course, I can’t seem to find a spot where I am alone here at the facility. I thought about the inner courtyard, it’s

empty certain times of the day, but then I realized all the windows around it are rooms for the patients, and they would all hear me, especially if I was singing opera.

Mr. A reported that while at the nursing home he did not tend to:

Sing or join any of the music groups [but] I do listen to music on my iPhone. If I started singing opera in my room, I think there would be some complaints. I have audiation skills so I can hear music in my mind without making any noise and I can enjoy that. As you probably know, it is a skill many musicians have. I don't hallucinate.

Mr. A was also composing a performance with his wife. They collaborated on it when she visited or over the phone and were planning a performance for the family including their own "music, lyrics and choreography."

Mrs. B indicated that "Later in life, I joined a semi-professional choir group for a couple of years." At the nursing home, she would "sing to the radio and I join in different music activities here." She has enjoyed the group activities when she participated, but "I tend to communicate with old friends and have not connected with many new people here, I tend to keep more to myself, but I must admit, I am never sorry when I do join in, singing with the people here."

Mrs. C indicated that playing music at the nursing home would bring back memories of playing at the cafes:

Some people show respect for me and my music, or genuinely want to make music with me. Then there are always a couple of dirty old men who have

something else in mind and it may bother me briefly, but I always have a few pointed words to share with them before moving on. I was a strong young lady and now I am a tough old bird.

Mrs. C explained how she has suffered various losses and has had to adapt to the various personalities at the facility:

As you may recall, there was a man that I enjoyed the company of. He was very kind to me, and I have great memories, mostly with music as a part of it but he passed away a while back. There hasn't been anyone since, but I still enjoy our little musical engagements here ... Music is more for my own pleasure and less entertaining residents around me. Maybe that would change if they started paying me to perform like it was back in Mexico City ... My old roommate also passed away. She was great she watched her TV and was out of the room a lot at activities. She never asked me to play for her but did not mind whenever I wanted to play music. I am not so lucky with my current roommate. I have to adjust more to keep the peace.

Mrs. C "enjoyed" the relationship with Mrs. F, which endured longer than others. Mrs. F was "the Irish lady who plays Celtic music all the time with her fiddle. Now it is better if we play in her room, but we just don't play together as much as we used to." In spite of the reduction in sessions, Mrs. C acknowledged: "It's still fun though sometimes other want to join in, which is ok with me most of the time."

Mrs. D mentioned that in her younger years during the early 1990s, she was one of the first to purchase an acoustic backpacker guitar made by Martin, and she used it

“everywhere. I especially loved playing in the tunnel under a bridge in Central Park, the sound was amazing. I played on park benches, at bus stops and down in the subway, not for money, just for fun.” Mrs. D mostly continued to make music at home, until late in life when she attended the Brooklyn Conservatory where she would sign up to use their practice rooms:

Overall, I was nervous, and it was greatest if I was running out of time in preparation for some sort of master class, performance or examination ... At other times, I was just reviewing pieces I knew well, trying to really lay down the muscle memory, they were the least stressful, and I always performed at my best. Keep in mind, I might have been alone in a practice room built to isolate the sound, but people were always lingering around outside the door in the hallways.

Mrs. D mentioned the Conservatory was very challenging, but “really helped me refine my skills,” and she has been composing ever since. At the nursing home rehabilitation center, she found “Fado is a relaxing enjoyable part of my life. I have made a few good friends through music, and they seem to truly appreciate it when I perform. I’m lucky that my roommate enjoys it, too,” but she looked forward to her eventual discharge in order to return home.

Mr. E revealed that his wife had been his caretaker at home for some time, but she quickly passed away from COVID-19. As he described it:

She caught the China virus early on. The last time I saw her was when the ambulance came to take her to the hospital. My children all took turns taking care of me while she was in the hospital. They didn’t get to see her either. She died all

alone in there and I couldn't let the family continue to disrupt their lives caring for me once I realized this would be permanent, so I moved in here. It was at the height of the China virus, so we were all isolated in our rooms. Some family would come and tap on the window and wave and call me on the phone, but it was isolating.

Mr. E's firstborn son delivered him a "little gadget with countless songs on it and ear plugs. I also asked him to bring in one of my small metal drums," and Mr. E joined the drumming group as a result. He has been happier since being allowed to:

... go out on pass with family. Getting a meal now and then at a good restaurant can really make up for some of the meals they serve up here ... I am not what you would call a spiritual person, but I do recall times when I would lose myself in the music, like a trance, connected to the music in a way that seemed to surpass the performance alone. It's euphoric, but different than an emotion. I can't really describe it accurately with words.

Mrs. F said, "Fiddling ... made for a pleasant atmosphere around the house, though as I mentioned, my oldest son didn't care for it and would go to his room and put headphones on, which was fine." She reminisced how much "music was a great pleasure for me and my husband, after the children grew up and moved out on their own," but she stopped playing for a while after he died. Then following her accident:

I never made it out of rehab and my family moved me in here permanently ... At first, I was focused on physical exercise and trying to get home. I did not have my personal things with me so I couldn't play the fiddle even if I wanted to. Once I

moved in permanently my oldest son helped me move into this room and delivered my fiddle to me. He even asked me to play for him and appeared to really enjoy the moments we had together. It has been a routine whenever he visits now.

Mrs. F became an integral part of the nursing home community of musicians. She “reengaged with people, I’m happier when I am playing, whether alone or in a music group, and I developed a nice friendship with Mrs. C, she plays the Spanish guitar.” During COVID-19 restrictions, residents were isolated in their rooms with their roommate, and she did not make music as often. After the restrictions were lifted, “Mrs. C still invites me to wheel myself over to her room on occasion and we play and talk for an hour or two. Lately, she has been coming to my room more.”

Mr. G turned down the offer to engage with others in music making at the rehabilitation center:

My wife should be coming with the car to take me out of here soon. She has an appointment with physical therapy next week. They are going to test her to see if she can help me in and out of the car properly. If she needs some training, I understand they will provide it. I already had the contractors come in and install chair lifts to the second floor, and maybe more importantly, to the basement. I also had ramps for the front and back doors, some railings and a walk-in tub with whirlpool jets and an overhead shower and handheld combo.

Mr G stressed how much he “can’t wait to get home” to his wife, and he looked “forward to the independence the new set-up will provide.”

Mr. H explained his third wife died a few years ago, and then he became a long-term resident at the nursing home:

I haven't played professionally in a very long time. I rarely if ever acknowledge I was a professional musician, not even in the drumming group. I did tell Mr. Y but his Alzheimer's advanced and he doesn't remember me. I also told Ms. W, but she passed away last month.

Mr. H also enjoyed banging out a beat on things with chopsticks or conducting to classical music while wearing headphones.

Mr. I declined participation in the musical activities at the facility, and mentioned he was under the impression the music groups were only for the long-term residents and not the short term rehabilitation patients who needed to focus on goals for discharge:

I don't plan on failing physical and occupational therapy and staying here the rest of my life ... Thanks but I'm a lot younger than most of the people here and when I'm not in physical therapy, I usually have visitors stopping in ... I trust it will be home before the end of the month. They say I'm doing well in PT.

Ms. J had a dog much of her life, and remained single, but continued dating and enjoyed playing her guitar, and reminisced about the days of her band. While at the nursing home:

I have gone to a drumming circle and a singing group, I didn't care for the drumming, but I sang in the band in addition to playing the electric guitar so that was fun ... I don't have my guitar here. They have been trying to get me well

enough to go home to my assisted living apartment, but now there is talk about the possibility of long-term care.

Mr. K reported how staff gave him his pain medication about a half hour before the rigors of physical therapy, which made the whole process manageable. Then he expressed the thought that, “Maybe I will start doing that ... before playing the bass. Taking drugs before jamming would certainly be consistent with the history of other jazz musicians!”

Mr. L described how he had a “motorcycle with a sidecar that I could put my Contrabass in. It was a scene, and everyone knew who I was as a result. Things were picking up until a drunk driver” smashed into him. His family brought in his miniature violin and rubber mute in for him to use at the facility, which helped.

Mrs. M recalled that:

Once in a while later in life, my husband and I would go out to a pub for dinner and listen to music, but I became more like him, enjoying listening to music without a strong need to join in. I do join in here though, my daughter dug out my lap harp and delivered it to me when she heard about the music activities they had.

Ms. N reported she “never married and didn’t have children, but retirement has been fun.” Ms. N still loved to listen to music but did not play it anymore:

I reached my pinnacle years ago ... I enjoy listening to CDs of my professional work with [my boyfriend] if I want to reminisce ... I have new things to explore in life once I can set up my discharge. We are trying to coordinate a day pass for

the final check-up and having the feeding tube removed by my surgeon in the city. He is hard to pin down and then the social worker will process the discharge papers for me to sign. We hope to take a private jet out of the local airport down to Palm Beach on the same day as the discharge, for the rest of the season.

Mrs. O did not participate in any musical activities other than listening to music at the facility. She was focused on getting stronger and being discharged home to her husband where she still loved to play her harp, which she did on her own, with her husband, or when family visited, including grandchildren.

Mrs. P indicated she had not engaged in music at the nursing home other than listening to music. She enjoyed “listening to music on my phone, or the classical channel on the TV, they ... help pass the time. I sometimes do my exercises in bed or in my chair while I’m listening to music.” She was determined to build strength and “... get out of here ... I play my electric piano for family and friends [at home], and I guess I feel differently depending on who will be visiting.”

Mr. Q reported that he still played violin at home by putting on orchestra music and improvising to it. He stated that he would like to be able to actually play along to the pieces, playing the actual violin section, but he could not sight read. To that end, he streamed “YouTube classical violin lessons.” Apparently, the comforts of being home alone guaranteed that he did not get nervous, though it was a challenge. He claimed:

If I had felt like this when I was in seventh grade, I would be a violin virtuoso at the nursing home, she made good use of the facility’s piano. I’m going home in a week, and I have an appointment the next day to have my piano tuned. I’ll miss

the people here, especially the physical therapists. You have a great team. They worked wonders with me, but I am really looking forward to getting home and cooking for myself again.

Ms. R announced she would be discharged soon, and already had an appointment scheduled with the piano tuner. She enjoyed using the piano at the facility, and had the highest praise for the therapy staff, but less complimentary things to say about the kitchen:

I'll miss the people here, especially the physical therapists. You have a great team. They worked wonders with me, but I am really looking forward to getting home and cooking for myself again. They should really make the staff eat the same food they feed us. It is usually substandard ... You look like someone who really enjoys a good meal.

Mr. S was depressed after his wife passed away and did not play any instruments for a while. Prior to going on Medicaid and becoming a long-term resident at the facility, he sold his saxophone and other possessions, and returned to playing the alto recorder. He also enjoyed the drumming group, even if he sometimes experienced a little anxiety beforehand.

Mr. T explained how he cared for his wife in her last years with Alzheimer's Disease, and how:

Music took on a new meaning in those days. Even when she couldn't remember the children we had, she still had a clear memory of the songs. I truly believe she would have forgotten who I was much earlier in the progression of her disease if

she hadn't associated me with the music she never seemed to forget. Music provided her a link to our past, and it had a new meaning for me.

Mr. T was a long-term resident at the nursing home. He made good use of the available musical activities and enjoyed playing his muted bugle.

Experiences & The Continuum of MPCs: Mostly in the Words of the Participants

In this section, I cover the participants' experiences of MPCs including the continuum of those experiences, which can also be checked against the coded verbatim transcripts of the 20 participants in Appendix 1. I selected from the participant's narratives, those descriptions of their various experiences, if any, of affective, behavioral, cognitive, physiological, and spiritual MPCs, and the continuum of MPC reactions, ranging from brief but intense states, to lower-level moods that tend to endure for longer periods of time, to a dispositional trait that can be lifelong. For the following examples, the materials selected are grouped under the participants' code names. I share more fully analyzed the responses in Chapter Five by lifting the rich coded terms directly out of their narratives, and into representative tables. Then, I compare and contrast those tables with the tables that were derived from the corresponding literature reviews in Chapter Two.

Mr. A: First Interviewee

Reflecting on his younger years, Mr. A said his mother would sing with him for various reasons, and "It was always comforting ... very comforting ... I have such warm memories about that time together. I loved it, I loved her." Singing always seemed to change the mood regardless of how good or bad things were to start. He reported experiencing some stress from the fear of failure singing Latin, but he was able to cope,

and “performed well ... [and] felt accomplished praising the Lord.” As for singing in the Church choir:

I was pleased and eager with a lot of energy, feeling powerful and enthused from the moment I woke up until choir practice started each and every week ... the choir master, members of the choir and Church community made me feel wonderfully ... The same was true for Sunday Mass, it was wondrous, and I completely loved the performances, I was outstanding.

Mr. A remembered the experience as occasionally spiritual in nature, “I felt connected to the entire community and from time to time the sacred music truly connected me to the Lord who I praised with song, I could feel euphoric.” Studying opera at university Mr. A’s reactions included, “Anxieties and worries building in the lead up to music exams or productions ... my heart raced, respirations quickened I worried, and didn’t perform at par ... but when it subsided my performances improved and were exhilarating.” After graduation he worked as a United Nations translator and didn’t sing much except at family gatherings, which “we all enjoyed ... [and] sitting as a family and singing praise to God from the pews.” Mr. A “was delighted when Pope Benedict approved bringing back the Latin Mass.” He always enjoyed signing praise to God in the original Latin.

Reportedly, his joy has been extinguished. Ever since he “heard FBI agents were infiltrating the Latin Masses and targeting Traditional Catholics it made me worried and uncomfortable ... I don’t wake up excited to go to Church, sometimes I just go back to sleep, basically I sleep off-and-on day-and-night, have nightmares and I even skip going to Church.” He described his mood with varied emotions of anxiety and depression. “My

thoughts start racing about being targeted. It is really bad when I do go to Mass. Singing at Church doesn't relax me like it used to, and I feel depressed afterwards, or guilty if I skip Mass." Mr. A also talked about when he is alone, and music at the facility. "It is a habit of mine since a very early age, and I continued it my entire life. Singing was probably responsible for my demeanor, good health, level headedness, and good cheer all these years." He complained that there is no place to be alone at the nursing home. Then he added, "Frankly, I don't plan on being here very long. I am really working hard in rehab, building my strength and I hope to walk out of here in a few weeks." Yet, he remained active musically, none the less. He and his wife have planned a large Christmas celebration for the family, including grandchildren. Following Christmas Mass, they will present a duet that:

Mrs. A and I have developed ... about our love, family, and the Baby Jesus that we plan to perform for the kids. We are still working on the music, lyrics and choreography, I feel creative. We are having a wonderful time with it. We collaborate on the phone and work together when she visits. It's wonderful to have something to work on together.

Mrs. B: Second Interviewee

Knowing herself, Mrs. B admitted she just did not want to put in all the effort that would have been demanded of her to learn the guitar. "I wasn't a vigilant person, and couldn't focus that much," and since her philosophy in life was to move "in the direction of least resistance, ... my career as a singer was launched." As she got a little older, she felt very confident, "I was good." However, she started to have anxiety about getting

enough “gigs to pay the bills” once she moved away from home and lived independently at a young age, she experienced much “more stressed about getting work than other members of the bands” who worked alternate jobs besides music gigs:

I don’t know if it was my heart rate, or breathing, or muscle tension, or all of the above but my body was on edge, I had butterflies in my stomach, and I was worried. It would impact my voice, but I wouldn’t care about that, as long as it did not impact the crowd’s support. I thought it always depended more on the songs we picked. If the room started to fill up, and cheered and applauded, my worries subsided.

Mrs. B noted that it was very different when the group would practice outside. For example:

It could be the beach, parks, the mountains, I remember once when the echo turned our music into a fugue. The music always seemed better to me when we were out communing with nature. The great outdoors seems to give me an enthusiastic purpose to life, especially when I’m singing. Eventually I married and had five children, which took priority in my life.

During married life, raising children, “I no longer worried about singing for my supper, my voice was more relaxed, and my singing was extraordinary.” At that stage of her life, she “enjoyed singing to the radio at home and in the car, and at church along with all the other parishioners.” Later in life Mrs. B joined a semi-professional choir. “I was surprised at how much fun it was to read music and be part of an actual choir, I excelled at it. I was well prepared when I joined, no anxiety.” At the nursing home, she engaged in various

musical activities with other residents, and sang to the radio:

At a certain age, I stopped caring what other people think ... Sometimes it is more fun than others ... If I had the ability to easily figure out what makes a person feel better, I would be the psychologist here ... These days it is probably more dependent on the general mood I start with based on how the day went. If I haven't heard from friends or family, if our meals weren't very good, as you know they can be variable, or if the news is really negative on a given day, I could start in a less than pleasant mood.

Mrs. B mainly emphasized how, "Singing always makes me feel good but sometimes it is a bigger lift than others."

Mrs. C: Third Interviewee

Mrs. C acknowledged that her guitar lessons with Mr. P resulted in a mixture of emotions, and overall, she found them "enjoyable" in that:

It was exciting and I was a happier girl in those days, and a good student, I practiced hard. Mr. P was easy going and didn't pressure me ... but sometimes it was stressful. I was nervous [that] ... my father might be returning home during our lesson. I would get distracted thinking he would be mad to see Mr. P drinking his liquor. I don't think I played as well as a result.

Mrs. C indicated that when she started learning from the members of the Mariachi band, "They played from memory [so] it was hard." One member was extremely demanding, resulting in anticipatory anxiety, but even though "He made me nervous ... [and] sometimes I wouldn't be able to concentrate, and attend to the music." As she matured,

the unwanted male attention from some members of the band and patrons made her extremely uncomfortable and she reported, “My heart beat fast, my hands perspired, and sometime my fingers got cold.” Then she clarified how her heart rate can quicken for other reasons, too, even positive ones. “For example, when I am excited in anticipation of something or really happy, my heart races but my performances are right on target, I don’t tend to perspire or get cold hands then, it is a bad sign when they happen together.” In response to the unwanted attention, Mrs. C indicated she “avoided going to the cafes and bars all together, but I needed the music instruction, so I would go while avoiding getting too close and I started dressing very conservatively.” She went on to explain that:

Early on, I was clumsy trying to handle the male attention as a result of my performances; I just wasn’t very adept at it in the beginning, and it negatively impacted some of my performances. It bothered me, even at home practicing as I paced around the room ruminating about how to handle it.

At school, Mrs. C felt like she had been targeted by Sister M’s fury more than the other girls once the sister heard about her involvement with the Mariachi Band.

When it came to creating anxiety in me, she was the worse. My hands and underarms would drip with sweat, as my heart pounded away like a drum roll standing in front of her at school, I just couldn’t think straight worried about her reaction if I made a mistake. I felt like I was going to choke, and it impacted my voice. No one made me feel like that before, or since.

Mrs. C grew to be less threatened by male attention and better about the music. At the cafes, “I would stroll around, avoiding some of the more obvious problem customers. I

learned to discourage unwanted attention without insulting any of the patrons, you just had to keep smiling, it was a lot of emotional work.” She became “a very strong, fit, and confident young lady.” When she moved to Greenwich Village in NYC, she was mostly comfortable with her music making, she started composing songs with mixed emotions:

As creative as it was, I was still distressed while writing lyrics for folk songs, and preparing for the first time I shared it at the park. I knew my friends would appreciate the sentiment, some were about love but they were often political statements and not everyone walking through the park approved. I usually felt great playing the guitar in public, but I was more apprehensive about singing one of my songs.

Once married and raising a family on Long Island, life was mostly tranquil and gratifying for Mrs. C as she became “absorbed” with the Celtic music of Spain:

Performances were not very frequent and tended to happen at the drop of a hat when the family or friends asked me to play. So, there wasn’t any time for concerns or anxiety leading up to it, no physical symptoms to speak of. Those were some of my best performances, I was focused, precise and engrossed in the event.

In contrast, “Practicing alone at home tended to be more frequent, and always fairly relaxed and enjoyable.”

Mrs. C recalled becoming apathetic about music after her husband died, but “I started playing a lot more, mostly by myself at home, about a year after my husband died; it helped me cope with his loss, I wasn’t capable right after he died and felt powerless,

but with time it became a real comfort.” She explained that now, at the nursing home, making music “makes life pleasant for the majority of the time.” Mrs. C had a male companionship she developed at the nursing home, but he also passed away:

It was depressing for a while after he died, and I didn’t play at all for a long time, my reaction time was slowed, I was apathetic, but after a couple of months, I remembered how music helped after my husband died, so I forced myself back into it and quickly started to feel better, no need for antidepressants here. I do not think I’ll risk another relationship because it does not end well around here.

Mrs. D: Fourth Interviewee

Reportedly, Mrs. D found her parent’s Fado music to be “mournful ... but I love it, especially the songs about the sea, and relationships, which can be sexy and reflect deep feelings of love.” During lessons with her parents, she “Never felt badly ... In fact, I felt good.” However, her siblings made her feel anxious in that they would:

... my brother and sister would make fun of me, and I would hesitate, freeze or muddle through a performance. It was especially bad when they had their friends over who used to laugh at me, too. I would avoid them if possible.

She became anxious in anticipation of their attendance and would always “tense up... get muscle twitches, my voice would tense up, my heart would beat fast, I would worry about what they were thinking and might say, and I would stumble through the piece.” In contrast, during individualized instruction with her parents, Mrs. D “was more focused, physically well, emotionally relaxed, and able to perform more effectively. I looked

forward to showing off my skills.” In the early 90’s, Mrs. D was one of the first to purchase an acoustic Martin Backpacker guitar that she carried everywhere:

I especially loved playing in the tunnel under a bridge in Central Park, the sound was amazing. I played on park benches, at bus stops and down in the subway, not for money, just for fun. There is something anonymous about the city regardless of how many people are around you. I felt fine, the music was fine, and I didn’t care what people thought, they were strangers to me.

She reported that later in life:

I never felt uncomfortable as an adult playing and singing for my husband, children, and friends. Those were the best times. At home with my husband, I would use music in a seductive way, or use it as a fun form of entertainment with the family and friends.

Mrs. D revealed she “really felt like I did not measure up once I started at the Brooklyn Conservatory late in life, it negatively impacted my self-esteem during the first year, even my Fado performances were less enchanting. I was nervous much of the year, but I persisted, and it became easier over time. Mrs. D described the music conservatory’s practice rooms she had at her disposal that she “could sign up for. I spent a lot of time in the practice rooms with a whole variety of emotions depending on what I was practicing, for what purpose, and where along in the process I was.” Mrs. D indicated that when she was pressed for time, preparing for a “master class,” she became more “nervous.”

The stress would make it harder to accomplish my task. At other times, I was just reviewing pieces I knew well, trying to really lay down the muscle memory, they

were the least stressful, and I always performed at my best.

While rehabilitating at the nursing home, she reported that at times when she was practicing on her own:

I felt connected to something bigger than me, it is as if I am reaching out to my parents, grandparents and my Portuguese heritage, but I couldn't begin to put that into words, though when it happens, music just flows from me, time flies, it's like meditation, and I feel very accomplished, and able to improvise while creating in the Fado tradition.

She further explained how she composed her "best work," which were "a few songs to my husband who passed nine years ago." Although he was a German man, and not Portuguese:

he loved my music more than anyone ... I only started composing after attendance at the conservatory. It was stressful at first, but the result has been well worth it. (The physical therapist entered the room) ... That's for me, I'm ready to go home as soon as possible. Thank you for all you do Dr. Reiss.

Mr. E: Fifth Interviewee

According by Mr. E, drumming of any type "always made me feel better, more confident, more positive thinking, calmer, more relaxed, yet elated at the same time ... in every case, once I started banging out a beat, my mood improved, and I felt better." Mr. E further explained:

The way I felt always had consequences on the way the beat initially sounded. Some were more fun no matter what, and others were not as much fun, it just

wasn't right. Other things besides the plan to play music could impact my moods, but once I started knocking out a beat, my mood always improved, as did the music as the beat rolled on.

After his honorable discharge from the military, he attended college and took some music electives and started to experience "test anxiety, and sweat through music exams. My heart felt out of control just before and during the exam, I worried I would mess up, which I did." It did not only happen at the time of the test, but he would be "nervous for several days leading up to exams," as he prepared, and it "affected my performance." Mr. E found it "strange" because in the military he, "saw a lot of combat, but never had PTSD or anything like that, only to be done in by college examinations."

After creating his own steelpans, he played at backyard BBQ's "That was one of the best times of my life; we had so much fun playing together." But when his wife died from COVID-19:

To tell the truth, I did not really care if I got sick and died. I really missed my wife. I was rather raw about losing her. It wasn't really living, and I did not care much for music, it sounded like a lot of angst. Once they started approving family members for visits with masks, my oldest son brought me in some sort of little gadget with countless songs on it and ear plugs. I also asked him to bring in one of my small metal drums. It made all the difference in my mood, sense of well-being, and zest for life; I think I am much healthier both physically and mentally, especially now that we have the drumming group. I never miss a session.

Mrs. F: Sixth Interviewee

Playing the fiddle was describes by Mrs. F as a “great pleasure in my life.” In spite of all the joy learning to fiddle has provided her in life, she was “anxious performing when her father was present.” Her “breathing would quicken, my heart would pound, my fingertips and toe would get cold, I would sweat, feel nauseous, have a queasy stomach, and dizzy with a slight headache. I could really perspire.” She found that “it was hard to focus on the music, which clearly suffered.” When her father wasn’t present and she was playing with friends, “I would experience anxiety then, too, but not nearly as anxious as when my father was around, and the music wasn’t as impacted.” During college “I would attend some sessions at pubs, though I never brought my fiddle with me. I was too nervous and self-conscious for that. I didn’t feel confident.” After moving to New York City her social life improved:

The mix of people at the pubs each evening made it relaxing to play. They all had different skills. I wasn’t the best but was better than most. At least I thought so. All those anxieties seemed to slip away ... Don’t misunderstand me. I could still have experiences when I would have all the physical symptoms I mentioned before, but they were never as enduring, pervasive, or extreme ... [but] by the time I married and had children, I stopped having anxiety. I was generally, calm and happy.

For Mrs. F, “fiddling would always make me feel content, happy, relaxed or joyful” in her senior years, except when her husband passed away:

I did not play much after I lost my husband. I was depressed after his death, and that depression killed all my motivation for a while. I could not think straight to cope with all the decisions I had to make. I withdrew from people, from music, from living. I was sad all the time. Even when the kids visited, I wasn't up to playing for them. I put down my fiddle for a couple of years, avoiding all opportunities to play, and when I finally picked it up, I tended to play melancholy airs.

With time, she started playing "some lively jigs, reels, and hornpipes" again. Mrs. F's "mood improved, and I started getting out with friends and enjoying things again. I even joined in for few sessions at the Irish pub." After becoming a long-term resident at the facility, "I also discovered there is a whole community of musicians here, some who are accomplished, others not so much, but music has me reengaged with people" She indicated, "I'm happier when I am playing, whether alone or in a music group. But during COVID-19 restrictions at the facility "I was depressed again during that period with so many people dying, and being isolated was no fun at all. I would still play my fiddle but not as much. Reportedly, she "would go through periods for a week or two of not playing, but it didn't last years, like when I was depressed following the loss of my husband. After the restrictions were lifted, Mrs. F and Mrs. C restarted their regular Celtic and Spanish music jams, among other musical activities. "Overall, music makes life worth living, both in the moment, and over time."

Mr. G: Seventh Interviewee

In his opinion, the cymbals are “probably one of the easiest instruments to play in a marching band. It was a blast.” Mr. G revealed he had more self-confidence, and became more socially engaged because of the band, “I looked great in my uniform and had lots a friends including girlfriends ... Membership in the band was part of my identity. Every performance was like a party. Actually, afterwards we would go out and party.” He went on to explain:

It was inspirational and exhilarating to march in the band playing the cymbals, I was good, and by my senior year I started feeling sexy as a result of all the attention we were getting. I was top notch in my performances as a result. Who knew cymbals could get you a date.

Mr. G’s college band leader, “was stressful, I did not like him. It made me tense, on edge and self-conscious. Of course, the party nature of our team off-the-field made it all worthwhile.” Later in life when he married, Mr. G’s wife was irritated by the noise in the house coming from the drums in the basement and “I would get annoyed thinking how unfair it was that I couldn’t play drums in my own house, I felt sorry for myself given all I did for the family. Sometimes I was livid about it and played even louder; it never helped the situation, or my music.” So, he built a soundproof room and all was resolved. After landing in the rehabilitation center, Mr. G has kept to himself, other than going to the gym for physical therapy. He rejected the idea of participating in musical activities, focusing more on the goals that will lead to an early discharge home. “I haven’t played with others since being a member of the marching bands. I guess it is like people who

sing in the shower, but avoid singing in public ... I usually don't get anxious, but I wouldn't feel comfortable." He went on to explain that, over the years, he has become "set in my ways just playing the drums by myself in the basement," and then he reflected, "I haven't been able to play the drums in a long time, and I am so excited in anticipation. It won't be long now."

Mr. H: Eighth Interviewee

When he first started playing the drums at his ninth birthday party, he realized his father was annoyed with him, but "it was the most fun I had ever had ... I always loved the drums right up until I started taking lessons." Reportedly, his teacher, Mr. W, "was very demanding and that's when my anxieties started. I liked him, he was nice, but he made it clear that if I failed to rise to the occasion, he would drop me as a student." As soon as Mr. H received his assignment each week:

The worries started. By the time I got home I had lost my appetite and would ask if I could be excused from the dinner table to start my practice in the basement.

My mother wasn't pleased with me not eating but by then my dad was ok with me practicing, not because he thought I was good and enjoyed the music but because he had soundproofing added to a room in the basement.

Initially, Mr. H described how throughout the week, his anxious mood persisted at a lower level compared with that period of time just before a lesson:

The stress continued all week, but it was tolerable, and as I learned the assignment, I felt good. Once I started to perform my assignment at the next

lesson, I felt pleased with myself. I never let him down and I understood he was proud of my accomplishments.

However, he qualified it further, explaining how his mixed emotions unfolded:

Actually, that sense of accomplishment and the joy of playing really did linger throughout the week between lessons, but the fear of failure would press down on me, too. Is it possible to have a general sense of wellbeing and be stressed out at the same time? Maybe both experiences would wax and wane, sometimes one dominating when practice was going well, and other times the worries setting in until I snapped myself out of it ... a mixed bag of thoughts and fear of failure, the joy of drumming the determination and practice, practice, practice.

As Mr. H started to fantasize about a career as a musician, he started having trouble sleeping at night contemplating his “future as a musician.” It kept him awake:

My stress during the week could become a full panic if I wasn't making enough progress with my assignment. In the car with my mother on the way to Mr. W's I would have to ask her to turn on the heater because my hands and feet were cold. The heater never helped much, but once I started drumming, I felt relief, able to put unwanted thoughts and stress aside, a great pleasure, mindfulness, it was transcendental.

When he joined the high school band, “both the practices and performances were a pleasure. I felt happy and I never really got nervous. I was chill.” Then starting the summer after tenth grade, he played in rock band, and “felt great,” but in contrast, he was stressed while at music school:

I was nervous the entire time and it would really go through the roof just before performances ... I might get tense while analyzing a difficult piece but never really stressed. I mean I didn't lose sleep over it, start sweating or get peripheral vascular constriction.

Mr. H was extremely competent conducting, but composition was a problem, "I felt weak, lost my appetite, and would get an upset stomach, especially when preparing for a timed examination. I would not do as well." He explained, "When stressed I like to take it slow and go through everything meticulously. It helps me manage the anxiety and feel more in control, but that doesn't work in a timed exam." As the drummer of top-rated bands:

The drugs and alcohol tended to numb me in the beginning ... We started using in the hours leading up to a performance and then again afterwards, sometimes even during, so I couldn't accurately report how music making made me feel over and above the substances when we played. It was all drugs, sex and rock & roll even when we weren't performing.

As his addictions progressed, "drugs and alcohol really took a hold of me. I was irritable all the time, argumentative with everyone including the band members and crew."

At the nursing home, Mr. H engaged with "the drumming circle, I get excited about it the day before and look forward with a small but clear sense of joy." He also got a rise out of ordering out for Chinese food and using the chopsticks and containers to make music by creating a:

... makeshift drum kit with the different size containers filled to different levels, my tray and whatever else is around, and of course I use the chopsticks as my drumsticks. It's fun. I can even tune up the sound based on how much I eat in each container. Then I put music on and jam along. Sometimes I get comments from other residents. The outspoken comments are usually negative, but some people get a kick out of it.

At other times, he preferred classical music, and would "use one of the chopsticks as a baton and pretend [to] conduct." No one complained when he used headphones.

Mr. I: Ninth Interviewee

Although he was still very young when he received his toy xylophone for Rosh Hashanah, Mr. I:

... still knew enough about the Jewish faith to know ringing in the new year was a form of praise to God and I took the responsibility seriously, and if I wasn't going to realize it on my own, my father certainly took the time to remind me of it before handing me the mallets.

They had music on the record player and Mr. I felt "a thrill to play along." During school he had difficulty paying attention because he would be he "daydreamed about playing ... The pleasure I had throughout my life as a young Jewish boy all centered around playing klezmer music" on the xylophone." As he got older, he played at various Jewish celebrations, expanded his percussion repertoire, and blended his klezmer beat, playing with various local "punk, rock-and-roll, afrobeat, and jazz bands." He described it as, "an exciting time" in the music world:

I felt accomplished, with pride in my abilities, when I felt on top of my game, I played better ... at various clubs we would get hecklers, drunks and some racists that really changed the mood but we usually had some very intimidating bouncers who could handle it and things would get back to normal fast though my tension lingered longer, and the anxiety probably impacted my performance. I would be distracted with racing thoughts about the disturbance, it was a downer, I would be physically shaken.

Mr. I reported it was a challenge for him to relax, so at the break he would go to the bar:

I would have a drink at the bar, or talk with friends. That would usually work, and I would be relaxed yet excited and happy to play some more in short measure, but once I just left and didn't finish my set.

Mr. I had been avoiding participation in group musical activities at the facility saying, "I'll just wait until I get out of here to play my instruments. For now, I have music on my phone and Bluetooth earbuds I enjoy when I have spare time."

Ms. J: Tenth Interviewee

In sixth grade, Ms. J started guitar lessons, with friends. They met their teacher separately but often practiced together. "If one ... of us had anxiety about a particular assignment making it harder to knock-out, we met ... and helped each other ... Although our teacher could be demanding at times, that stress was always overcome by our sisterhood." She described her time playing with friends as "an idyllic time in life." In junior high they went to different schools, and she was "quick to give it up and replace it with my newly developed interest in boys." In high school they reconnected, and

rehearsals were fun. In contrast, Ms. J also practiced by herself prior to gigs and described that experience as different than when the three were rehearsing together, in that she “noticed a general uneasiness, I felt tense, fidgety and a little worried about how I would do, and usually didn’t do as well as a result.” Additionally, she experienced a variety of anxiety symptoms just prior to going on stage with the band:

I actually had a little stage fright just before going on, palpitations, vasoconstriction, muscle tension and sweaty palms. It usually subsided once we were playing, and I didn’t have it before going back on after a break. I guess I was used to the audience by then ... By senior year we started to get some groupies who showed up at all our gigs, I knew them and felt more comfortable with them there in support.

Later, when she started playing at local bars, “I felt a little like an imposture because I did not feel like a real musician.” After a few music classes that feeling diminished, but she felt discouraged after the band ended, and just didn’t play her guitar for a considerable amount of time in her life before returning to it alone in the comfort of her home. Ms. J detailed how playing music was generally “all good, I was content. I enjoyed it. Some of my boyfriends liked it and encouraged me, but others didn’t, so I would avoid playing when anyone disapproving was around. Those relationships were doomed to failure.” She further explained how her dogs loved her music:

except one so I went through a phase when I stopped playing again, but that was short because he was an old dog I had rescued, and he didn’t live much longer. I think I had him a year and a half. Then I was back to playing at home again.

Ms. J was concerned about her slow progress in rehab and the likelihood of not getting out of the nursing home. “If I move to long term care, I’ll have someone get my guitar out of my apartment. It will make me feel at home wherever I am.” (A nurse entered the room for vitals, medications and treatments).

Mr. K: Eleventh Interviewee

Growing up, Mr. K did not have a musical background, but in high school, he decided “the guitar was cool.” He started with an electric bass:

I thought of it as just a lot of work in the beginning. More often than not, I didn’t like it, whether it was practicing alone at home, preparing for my lesson or playing for my teacher, it just seemed too hard ... My distaste and irritability would start the night before, I thought of it as an extreme imposition.

Yet, Mr K fared well enough during most lessons, and persisted with practice as a result.

He “always felt relief” once his lesson was over:

Not that I had accomplished a lot, I didn’t, but because I knew I could go home and put my bass down and ignore it for a few days until I had to start struggling again in preparation for my next lesson ... I disliked thinking about having to practice, and the dislike for learning to play would build as I practiced, right up until the next lesson was over. Then the cycle would repeat.

As Mr. K’s musical skills improved, so did his sense of self-worth, and he started to enjoy the activity, and he felt good, as long as he did not make an obvious mistake playing a piece. He reported that:

The good feelings ... ranged from good moods, to anticipatory excitement, to pure joy. Sometimes I felt especially good, and was more focused than others, and the music was better as a result ... I don't think I ever missed a music class, I even loved to practice.

Playing in jazz bands during college, Mr. K reported "It was a wonderful time, both practicing and playing," he felt good and the music reflected it:

Music theory was a struggle and reminded me of the days when I rented an electric bass for lessons. The feeling was similar. but as an adult I was free to cut classes sometimes. I considered dropping the class but did well. In the end it helped me and improved my playing.

In his later years, Mr. K loved playing on his back porch, where he found solitude with a couple of vices:

As long as I have a cigar burning, I am invariably left alone, and if I'm smoking a cigar, I'm usually drinking scotch, so I don't know if you would notice an improvement in my playing, but I would think so, at least I would be feeling better about it.

Mr. K said he was focused on accomplishing his goals in rehab, and wasn't interested in any musical activities while in the nursing home, but:

Jazz remains a favorite of mine and I can still listen to it on my iPad or phone while in here. I am planning on playing the bass as soon as I get better and get discharged home. My wife and I are looking forward to it, but I have to admit my arthritis in my hands and fingers make it a challenge. Hopefully, I'll be home in a

few days.

He planned to request a prescription for pain killers to help.

Mr. L: Twelfth Interviewee

Grade school was described as blissful by Mr. L. Regardless of the situations, or the audiences, he enjoyed playing his violin. Some settings, such as one with friends, may have had a stronger positive impact emotionally, but he didn't notice fluctuations in his playing. High school involved a lot of pressure to get into a good college:

I started getting nervous whenever a performance was coming up. I can still recall the first time I had stage fright as a freshman. It was a complete panic right up until the music started, and it impaired my performance to a certain degree. Even if I had the piece down cold in practice, it did not seem to prevent the stage fright, though it would subside faster once I started playing.

Mr. L was certain the difficulties were the direct result of the overly "pressure cooker" culture fortified by the faculty. This was based on the fact that when outside with his friends "it was still all good with respect to joy, confidence and even how my body felt." His stage fright included, "The usual fears of screwing up and embarrassing myself, a pounding heartrate, perspiration, hyperventilation, feeling shaky, headache, and I would keep to myself avoiding conversations with other people." He went on to describe how the stage fright would progress, starting "to a lesser degree in the days leading up to a performance, increase during, and linger afterwards, except for avoiding people, that only happened just before a performance." On this latter point, reminisced that eluding interactions with people just before a performance was "probably ... a bad move because

by avoiding the distractions of talking to people, I just focused more on my internal fears and anxieties.”

Reportedly, his anxieties continued at the start of college:

During my first year [at Princeton] I saw a counselor who taught me various relaxation techniques and pushed me to develop an exercise routine to improve my cardiovascular system. He would have me time how long it took me to calm my body down while playing the Contrabass directly after a vigorous workout. At the end of a workout, I would sprint to my dorm and up the stairs to my room and immediately start playing, while using relaxation methods to calm myself. When I got good at it, the stage fright stopped happening, or at least it was minimal, and a lot of the joy from childhood started to return, and my music improved. When playing music, I think that joyfulness for life, for people, and I dare say, the universe when feeling transcendental, was instilled by my parents, and grade school. It's part of my personality and was only pushed down for a little while as I matured through adolescence, becoming a man.

Mr. L reported that after his wife's death from cancer in her early 60s. “I immediately went downhill and got really depressed. Little in life was joyful in those days, not even music. I fought my way back and even started going out and playing with friends again.” After getting hit by a drunk driver, Mr. L went to a hospital, and then was transferred to the nursing home where he initially felt depressed until he started making music again:

... felt sorry for myself for a little while but my oldest son brought in my miniature violin. I never got rid of it and he had new strings put on it, tuned it

down, and brought in a rubber mute. I prop it up on my lap and play it like a bass. It's still a little high pitched for my liking but it never fails to bring me joy, and no complaints from peanut gallery around here.

Mrs. M: Thirteenth Interviewee

From an early age, Mrs. M loved playing her toy harp, “music was so much fun, and I did not care if I couldn’t really play ... Those were wonderful years ... Without the gift of music I might have been a very lonely girl.” She started fantasizing she was a “little cupid flying around” as she played her harp, and it even developed into a “recurring dream ... It was literally a heavenly feeling, though I have never been a particularly religious person.” After her mother bought her a miniature Irish harp they played duets, which she “really enjoyed.” When she made music with friends, it “was usually great fun.” Mrs. M pointed out that as wonderful as life was growing up, it wasn’t perfect in that a couple of her “friends didn’t always play nicely in the sandbox, so the music suffered and that wasn’t great.” As a young adult, when noticed she was having difficulty practicing for sessions, the stress:

... increased and made learning harder. Usually, I was excited and in a good mood just before the sessions, and my performance reflected that. I guess that is because I would skip going if I did not have the pieces memorized yet ... but every now and then I would memorize a very different version of a piece they were playing and stand out like a black swan during a performance. My anxiety would skyrocket ... it was pretty unforgettable.

Later, when she was middle aged, she was afraid her anxiety was returning, however, she learned it was related to menopause:

My doctor told me those were hot flashes. It was basically the same but at the pub I always knew why it was happening and as a result the physical response was paired with a feeling of embarrassment and a desire to exit stage left ... I would just put my harp down, get up from the table and go to the bar for a Guinness, or excuse myself to the lady's room. Beer works as does powdering your nose.

Mrs. M acknowledged her renewed drive to make music on her harp, but not without some occasional social stressors:

I do join in here ... my daughter dug out my lap harp and delivered it to me when she heard about the music activities, they had ... It is a lot like my childhood with playdates; some people are more fun to play with, others can be difficult. That seems to be the circle of life, having to depend on others to care for me just like a little child.

Ms. N: Fourteenth Interviewee

Memories of Ms. N's mother were vivid as she talked about her. Ms. N appreciated her kind manner and the way she introduced Ms. N to music at a young age. Ms. N only recalled "good times with my mother, I looked up to her, she had a very natural way of introducing someone to music ... Formal lessons were a very different animal." She went on to describe how her:

... first teacher was very strict. I remember she would hit my arm with the hard part of her bow whenever I failed to hold my bow ... the way she instructed ... I

was a little frightened of her. I would get stressed out about every lesson and had all the typical physiological symptoms of anxiety as a result, including performance difficulties ... and really spiral at the beginning of every lesson. I never explained it to my mother. I avoided that conversation.

After two years the new teacher was great, “I didn’t practice out of fear. Instead, I practiced because I enjoyed it, and in turn, my performances were always better.” The school band “was wonderful.” As great as it sounded, Ms. N did acknowledge that after a couple of months of practicing for a performance that was still another couple of months away:

I started to get a little bored with the music since we had been playing it for so long. My mind wandered. I had little inspiration or enthusiasm for the music by then, it wasn’t pleasurable, but as we got closer to the actual performance, the excitement started to build, and the boredom passed. Each performance was perfect.

At Oberlin, Ms. N had a teacher assistant who reminded her of her first music teacher in grammar school. The Oberlin TA “wasn’t as bad, but I did have hints of all the negative reactions ... However, I had more self-confidence by then and realizing all the other students felt the same way helped me cope with him enormously.” Auditions for her first orchestra position seemed endless. She had anticipated an easier time, but the process was challenging: “After the fourth rejection I started to tense up about how I could support myself ... The auditions were becoming like a job ... I worried my perfectionism made me prepare even more. The auditions were becoming like a job.” She reported that

as time went on, she was “getting depressed during the preparations and nervous at the auditions themselves.” In retrospect, Ms. N was relieved that the call for the audition that led to her first job offer “was last minute, and I went with little preparation, felt calm, was physically relaxed, didn’t think much about it and was delightfully surprised with the offer.” As her professional career started, she felt “welcomed into the fold and excelled for the next decade. I was very professional, physically relaxed, without worries or anxieties. I liked everyone, the music and the work.” Yet, it was stressful on occasion:

There were a couple of times that were stressful though. Every now and then we would have a guest maestro, and they were not all pleasant. My stress reactions would try and raise their ugly head, but I was always able to keep it in check.

Sometimes the conductor brings more out of us than others, but it has mostly been positive. Aside from a few bumps in the road with guest maestros causing stress early on in my career and one that just seemed bored with the job, like it was an imposition, my career playing in orchestras has been at the top. I wouldn’t trade it for anything.

Yet, she put her instrument down after retirement, as if it was a laborious job she was through with. She has continued to engage in musical activity, enjoying putting on orchestral CDs she plays on, and recollecting when she was involved in the recordings, while sharing it with her boyfriend, but she has not picked up her instrument again, “I reached my pinnacle years ago and have no interest in struggling with my instrument at this stage of life.”

Mrs. O: Fifteenth Interviewee

As a teenager Mrs. O started playing the harp. Her father made her anxious, impairing her music, so she avoided him:

If I wasn't playing well in the beginning, I didn't realize it. I thought I was great. I was just happy ... Actually, at times it was trance like, as if I traveled into another dimension. When I snapped out of it, I felt lightheaded, distracted, and a little shaky.

In order to revive herself, Mrs. O "would just take a break, eat or drink something and usually return to it feeling better." As a history major in college, with electives in music Mrs. O "developed a strong love for classical music, especially from the romantic period ... I came to objectively believe in my musical skills, which is very different than the subjective belief I had as a teenager." After college, Mrs. O joined "an amateur theater group and orchestra" in her home town and was generally "in a good mood and excited prior to and during practices and performances, my heart beat would quicken, I had a bigger smile than usual, and always played well." But everything changed when two complainers joined the group:

One season a couple of women joined the group and started grating on me.

Although they tended to stay to themselves, when you could hear them, they were always complaining all the time. They were absolute pills. I just didn't like them and let them live rent free in my head for a while. My mood would change as soon as they walked in the room, and I did not play as well. The whole feeling and dynamic of the group changed as a result. I was a little angry and physically

depressed, both of which showed to anyone observing, and it affected my performance, so I dropped out at the beginning of one of the productions we were working on and didn't return until after they left the group.

Her love for classical music developed during her college years, "especially from the romantic period, and as a result I was good at it." In contrast, she indicated that "by the time I graduated I had been introduced to atonal pieces, something I would have really liked in high school," but did not take to in college. She explained, "if I had been introduced to it then, but by the end of college, when I did encounter it, I wasn't very keen on it and don't know if I was good at it or not." With respect to music groups in the nursing home, Mrs. O "sat in on a few, but just listen and tap my foot." She planned to continue to play "At home with husband, with family, or by myself. The grandchildren love it and I rise to the occasion." She went on to explain, "I can't wait until I get out of this place ... I miss my harp; I think about it all the time."

Mrs. P: Sixteenth Interviewee

Although it was difficult, Mrs. P learned how to mimic the fingerings from a player piano, and she felt "confident," and also "on some level, I felt guilty, like I cheated" and was a "little anxious during the days preceding" a performance at a friend's house, worried they would discover she really did not know how to read music or play more than the few songs she memorized the fingerings for, "and it would get worse once I was there." As an adult, Mrs. P has continued to keep her player piano, and cabinets full of music rolls. Eventually, her daughter purchased her a computerized piano, that can download and play songs with keys that light-up, including music scales that she can

improvise with:

I am starting to feel like a real musician. Once I mastered the scales, it gave me more flexibility, it gave me more flexibility to improvise, which always brings me a lot of joy, and to answer your prior question, but in this context. I feel great before, during and after playing the piano.

Mrs. P hasn't joined any music groups while at the facility, but enjoys listening to music during the day and evening hours, and reported:

I play my electric piano for family and friends, and I guess I feel differently depending on who will be visiting, but I am not certain that has to do with how I think they will react to my music, or how I just feel about them in general. I guess, I don't enjoy playing as much for some friends compared to others, and the personalities of the people in the audience, it all clearly impacts me differently, the quality of my performance. If I am bored or irritated you can hear it. For the most part, it is still fun before during and after playing.

Mr. Q: Seventeenth Interviewee

In seventh grade Mr. Q started violin lessons to help with prep school admissions, and “without an intrinsic love for the music, it was a struggle.” He did not like it, although he thought his desire to get into a good school would motivate him, it wasn't enough to get him to practice regularly. He explained:

I would get nervous starting the day before my scheduled lessons and it would get worse on route to my lessons. How I felt afterwards always depended on how well I did and to a lesser extent, how difficult my next assignment seemed. I hated

it. I could hyperventilate, feel anxious and dizzy, restlessly pace around, and sweat.

Once Mr. Q was admitted to preparatory school, he, “stopped taking lessons. Every now and then I would pick up my violin and try to play along to a classical radio station. I liked that, but not enough to start practicing again.” He avoided taking music in prep school and college, “but that did not stop me from mentioning that I played violin ever since taking lessons starting in seventh grade when I applied to college.” More recently, he started improvising to the Carnegie Hall channel on the TV. “I love it, and feel inspired,” and he has continued to do so right up to the time of his admission to the hospital, prior to the nursing home. Mr. Q indicated he wished, he “could read music better. It would be great to be able to play along with the orchestra on the TV rather than just improvising, so I also stream YouTube classical violin lessons.” He qualified it acknowledging that he was generally more positive about his music making:

I can't say it's like a party, but I can say that I don't hate it, I don't get nervous, and I'm motivated to practice. If I had felt like this when I was in seventh grade, I would be a violin virtuoso. We will see how things turn out, but I am generally feeling good about it.

Mr. Q has continued to try and remain content while he listened to music at the facility, and imagined himself playing along, as he did his imaginary bowing and fingerings in the air, and “looks forward to getting home to his violin,” so he “can pick up where I left off prior to ending up in a hospital, and then here.”

Ms. R: Eighteenth Interviewee

In tenth grade, Ms. R's parents organized piano lessons for her, and she was mentioned how grateful she was, and then recalled how her piano teacher was:

... really nice and made me feel great. I was always so excited for a day or two leading up to our lesson. It was difficult to sleep the night before ... I was so determined and practiced on a daily basis. I was focused on what I needed to accomplish ... I do not recall any negative reactions. It was exciting and pleasurable, even when struggling at home with a difficult piece. I don't recall any worries, nervousness or disheartening feelings.

As an adult, Ms. R remained single and never had children. She explained her music skills remained about the same throughout life, as did her comfort level while playing, right up until she applied to take evening classes at Juilliard, which required an audition:

I worried about that for a few weeks, I lost my appetite, didn't sleep well, and tried to focus on practicing so I would be accepted, but wasn't doing well ... I was nervous and it really got intense the day of the audition. I was pacing back and forth outside the room because someone was inside practicing. Other people were in the hall, too. As it turned out so was the instructor. I was anxious right up to when I actually sat down at the piano. The instructor must have noticed my anxiety in the hall, or right then because he said, "Don't worry ... If you can read and play music ... you're in and ... I already read in your application that you can sight read, so just relax and play this for me." What a relief that was. I may have been driven to do well in class with him, but never anxious again.

Ms. R was relieved and felt “driven to do well in class with him, but never anxious again. I am so pleased with the progress I made.” She reported she believes her piano playing was “brilliant ever since that training. I’m confident, relaxed and happy.” At the facility, she took advantage of the piano that was available to her:

At first, I needed help getting into a wheelchair for physical therapy, so I missed being able to play. It wasn’t long after being able to transfer into the wheelchair, before I could use the walker, so I did not have to use the wheelchair to play for very long. Now, I take my walker over there every day and play for an hour after lunch. Everyone seems to enjoy it and it is a pleasure to play for them.

Mr. S: Nineteenth Interviewee

At a very young age, Mr. S played a recorder without any anxieties but when his father bought him a saxophone and arranged lessons in their home, things changed. The neighbors from the windows facing the back courtyard could hear him practice in his room and one neighbor, J, from school always heckled him about his playing, “which I dreaded, it made me angry, tense and restless, I couldn’t stand still, it sucked.” His father very demanding and whenever he asked to hear a piece, Mr. S’s “anxiety always went up to the highest register.” When practicing in his room, Mr. S “would get nauseous ... When J started heckling me, my breathing sometime became irregular and negatively impact playing. Other times, I aggressively hit discordant notes just to annoy J more knowing he might strike back another day.” After confronting the situation head on, fighting with J, and resolving it, Mr. S recalls feeling mostly comfortable and content when playing his saxophone during his high school years. He acknowledged that during

his days at university his “nervousness started to grow again” and the teacher assistants:

... sometime made me nauseous. If I knew I had a meeting with a teacher assistant coming up or a performance, they would attend I worried and dreaded it for days ahead of time and it would really bother me just before the event ... On the bright side, as soon as I started playing a piece I liked, nothing could bother me, my mind and emotions just got lost in the music, it was wonderful, transcendental.

Later in life, making music was more relaxed at home with family and friend, “It was always pure pleasure when I played, no worries.” When Mr. S’s wife passed away, he was very depressed and, at first, he wouldn’t play music anymore, it just wasn’t any fun, “or at least it wasn’t good enough to take away the pain of loss.” He explained, “I don’t own a saxophone anymore. I liquidated everything, moved in here and went on Medicaid, but I did manage to pick up a plastic Yamaha alto recorder. The sound is actually alright for plastic.”

He indicated that in spite of life’s challenges, Mr. S persists at, and looks forward to making music:

I ruminate about how life sometimes comes around full circle. It doesn’t make me feel good. I’m back to the recorder I started with. They have me wearing a diaper because I can’t make it to the bathroom on my own, a couple of residents heckle me to stop playing, which really ticks me off because they like to go to bed right after dinner ... I still get a little apprehensive thinking about our groups just before them but it’s mild and the drumming circle is easy and a lot of fun, I look

forward to it all week.

Mr. T: Twentieth Interviewee

At his father's request, Mr. T taught himself birdcalls in order to help his father with hunting for food for the table:

I [had] a sense I was communing with nature, with God's creation. Of course, ... the goal was to lure them in ... which sounds more like the devil's work, but in Genesis God did tell Noah that animals were all fair game for mankind to eat.

He was "usually nervous and annoyed if not angry when dealing with" his music teacher in high school, and "In that state bugling went down the drain." Whenever trying to learn something about the bugle or other unkeyed horns, his teacher usually sent him to the library. He also noticed he, "must have sweated profusely. Though I did not notice it during the lesson, my shirts were always stained under the arms and around the collar when I got home from schooldays with a lesson." Besides the difficult emotions in high school, Mr. T has no regrets about how he learned, "I excelled at it, and it has always been fun, I love the bugle." Although he dropped out of college to be a stable hand, he was resilient in most situations, and excelled with his bugle skills, becoming a member of the hunt. At first, he felt a little out of place among the members, but eventually became successful in his own right:

Prepping for the hunt and participating was always very exciting. I could feel my heart pumping in anticipation. It was simply wonderful. I don't recall noticing my heart during the hunt, but I'm sure it was a quick as the horses. I had other things to focus on. My anxiety about playing the bugle had little to do with my music

skills, and everything to do with worries about not being accepted in the group.

My thoughts were all tied up with feeling like an imposter. I wasn't a member at the hunt club.

Reportedly, later in life he became more confident:

Worries and nervousness subsided and were replaced by a sense of calm confidence later in life, after becoming successful in business and being accepted into the different clubs. I started openly embracing my background as a true American Dream. I was proud of my rags to riches accomplishments. My skill with the bugle hadn't changed, but I enjoyed it more.

At one point he had a back injury from "a jump while playing the bugle during a hunt." It made bugling painful. "I had to do crunches and build my core muscles before it stopped hurting and my bugling was back to normal." Mr. T likes to "brag" about his family.

They're musical and also enjoyed riding. When they played together "in every and all situations ... I felt calm, confident, happy and in good form." However, he felt bad "if someone in the family had a performance ... and they were clearly struggling, but that had nothing to do with my reaction to my playing or plans to play music; it was just an empathic response to their situation." When discussing spirituality, Mr. T explained he maintained a more secular understanding of what a person's spirit is:

I'm not a religious person, but I do believe your spirit is carried on through the people you impact in life. My wife's spirit is alive in me, and I remained alive in her and will remain alive in my children and friends, through my music and their memories of me.

Mr. T broke his hip a little while after his wife passed away. He was not a good candidate for an artificial hip and ended up in the nursing home. He explained:

I never made it home from here and was moved over to the long-term wing. Most of the family visit regularly, some live in other parts of the world but keep in touch. I enjoy listening to music on a regular basis and when I play here, I use a bugle mute so it doesn't echo through the entire facility. Not everyone likes the sound of a horn so I feel more uneasy about playing, nervous and worried about what others will think of me.

At the end of the interview, Mr. T started reflecting on his life and his management of issues at the nursing home:

As accomplished as I became in life, I suppose I never completely got over feeling out of place at the hunt club when I was young. But all-in-all, putting in the effort to play music is worth it. I am happier, even joyful, I feel healthier, stronger, more resilient, socially engaged, alive, worthwhile, and connected to the world, even while stuck in here.

Findings: Codes & Frequencies

In this section, the codes are described in Table 15, and their frequencies are presented under the two general headings of: (a) *Sets & Settings*, and (b) *MPCs & Continuum of MPC Reactions*.

Coding

The major themes that were derived from the analysis were presented in Table 13 above, and please see Table 15, below, for the master code list that was developed.

Table 15

Master Code List

Codes	Descriptions
[AFF]	Affective MPC Reactions
[BEH]	Behavioral MPC Reactions
[COG]	Cognitive MPC Reactions
[PHY]	Physiological MPC Reactions
[SPI]	Spiritual MPC Reactions
[BENE]	Beneficial MPC Reactions
[DET]	Detrimental MPC Reactions
[CON BS]	Continuum of MPC Reactions; Brief Spike
[CON EM]	Continuum of MPC Reactions; Enduring Mood
[CON GD]	Continuum of MPC Reactions; General Disposition
[ENV]	Musical Performance Environments
[AUD]	Musical Performance Audiences

As previously discussed in the *Research Design and Justification* section, template analysis highlights the use of coding, utilizing a comparatively substantial amount of structure in the process of analyzing textual material, but maintains significant flexibility to adjust when necessary. Engagement with the material has been a reiterative process, categorizing and recategorizing the text found in Appendix 1. The transcripts were read over and over, so that the template could be modified, adding and/or subtracting themes and sub-themes, as needed, based on the participants' responses, searching for configurations in the data that were consistent and comprehensible.

Sets & Settings: Codes & Frequencies

Two hundred and eight statements that referred to sets and settings were coded [AUD] and [ENV] for audience and environment, respectively. Please refer to Table 16.

Table 16*Frequencies of Sets & Settings*

Codes	Frequency
[ENV]	208
[AUD]	208

The range of environments and audiences included musical education, practice, performance, and appreciation at home or elsewhere, indoors or outdoors, with friends or family, choir, band, professional or semi-professional venues, nursing home music groups, in their nursing home rooms, or other locations around the facilities.

Experiences & The Continuum of MPCs: Codes & Frequencies

As mentioned above, affect is the umbrella term when there is not enough information to categorize MPC reactions as behavioral, cognitive, physiological, or spiritual. Please refer to Table 17 for the frequency of MPCs, and continuum of MPC reactions.

Table 17*Frequencies of MPCs & Continuum of MPC Reactions*

Codes	Frequency
[AFF]	218
[BEH]	79
[COG]	83
[PHY]	51
[SPI]	12
[BENE]	152
[DET]	97
[CON BS]	115
[CON EM]	103
[CON GD]	40

The coded MPC reports listed in Table 17 include: (a) Affective MPC reports (i.e., 218 AFF codes); (b) Behavioral MPC reports (i.e., 79 BEH codes); (c) Cognitive MPC reports (i.e., 83 COG codes); (d) Physiological MPC reports (i.e., 51 PHY codes); and (e) Spiritual MPC reports (i.e., 12 SPI codes). Throughout the transcripts in Appendix 1, 152 MPC reports were coded as beneficial (i.e., BENE), and 97 were coded as detrimental (i.e., DET). With respect to the continuum of MPC reactions (i.e., intensity and duration), 115 were coded as brief spikes (i.e., CON BS), 103 were coded as enduring moods, and 40 were coded as general dispositions.

CHAPTER FIVE

Overview: Analysis & Discussion

In this, the final section of the dissertation, I describe the analysis of similarities and differences between codes and themes derived from the participants' data and the literature review and organized thematically around the following: (a) *Sets & Settings*; and (b) *Experiences of MPCs*, including the affective, behavioral, cognitive, physiological, spiritual components, respectively. Additionally, the continuum of MPCs derived from the data are discussed with the literature concerning: (a) brief but intense states; (b) lower-level moods that tend to endure for longer periods of time; and (c) dispositional traits that can be lifelong. Then I conclude with a general discussion that identifies the principal contributions and limitations of the study, suggestions for potential future directions, and offer some final conclusions.

Sets & Settings: Analysis of Similarities and Differences

In Chapter Four included data from each participant, in mostly their own words, describing the situations in which they engaged in musical education, practice, performance, and appreciation. In this subsection, the different types of sets and settings (including audiences) of the participants are compared, contrasted, and discussed in light of the literature review. What I discovered in this qualitative study was consistent with the literature. All participants reported that their MPC reactions varied with the changing sets and settings throughout their lives. As shown below, almost everyone practiced alone at home, played for family and friends, had some lessons, formal or informal, and many have performed at either small or large venues, in situations indoors or outdoors, in

addition to engaging in musical activities at nursing homes. During their childhood years, most everyone practiced at home, made music for family and friends, and some had lessons or music activities in grade school and/or high school. During their adult years most everyone continued to make music at home, made music for family, friends, or people out in public, some had lessons, others studied music at the college level for credit, while still others performed in professional or semi-professional venues. During their senior years many of the participants curtailed their musical activities to mostly at home or their nursing home. Those focused on building functioning, strength, and balance in rehabilitation with the goal of returning home, tended to be less focused on making music while in the facilities, although they were still engaged in music appreciation, while listening to music in various formats. Long term residents seemed to become more engaged in community music making activities in the facilities, while also engaged in music activities, on their own, in their rooms.

As examples, Mr. A sang at home with his mother and other situations. His mother encouraged him to sing along whether it was around prayers at bedtime, or after an accident on his bicycle. He sang Latin Mass as an altar boy and joined the coed Church choir in high school. At university, he took opera courses and performed in various productions. Mr. A would also sing in a variety of other situations (e.g., walks in deserted places, and the car), at a family gathering, or sitting in the Church pew with family singing praise to God. At the facility, he listened to music on his iPhone, and with his wife, and had been composing lyrics for a duet and choreography for a Christmas pageant about their love, family and Baby Jesus. They planned to perform it for their

children.

Mrs. B's short attempt at learning to play the guitar to records, and her singing career started with friends at one or another's home. Rehearsals continued like that after they developed a band. They played at various bars and venues as she would "sing for my supper," and try to convince her bands to play music appropriate to the different audiences. Later in life, when she did not need to sing for her supper, she had more flexibility to pick and choose the situations where she would sing. She has not joined various music groups at the nursing home very often, but when she did, Mrs. B was always happy with the decision.

Ms. C took music guitar lessons in her home growing up. Then she practiced for, and with, different members of her father's Mariachi band, meeting them in the alley. She was in her Catholic school choir, led by Sister M, and they put on various performances. While still in Mexico she started playing at cafes. When older, Ms. C spent a great deal of time among her group of friends, playing music in Greenwich Village at each other's apartments, and at Washington Square Park. She even composed songs in the style of Bob Dylan. After getting married, moving to Long Island, and raising a family, she would play on occasion when the family or friends asked her to. When her husband passed, she avoided playing in any setting for a couple of months. At the nursing home, she appeared to become more open to making music in a variety of situations, but after her new love interest passed away, she pulled back, and only played for her own enjoyment, and or duets with Mrs. F.

Mrs. D sang Fado, and played the Portuguese guitarra with one, or both of her

parents, who were supportive, and then other times in front of her brother and sisters who made fun of her. As a young adult she played her backpacker guitar all around the city, in a Central Park tunnel under a bridge, on park benches, bus stops, and in the subway. She found the anonymous nature of the city comforting. Late in life she attended the Brooklyn Conservatory, used the practice rooms though people were always lingering around outside the door in the hallways. At the nursing home she has been involved in musical activities with a social system of a few friends. Sometime Mrs. D would practice alone, and she had been composing songs to her deceased husband in the Fado tradition.

Mr. E indicated he would make a drum beat in front of different people and situations including home, school, and the military. The latter was significantly different depending on whether a senior officer was listening or not. Later in life he fabricated a set of steelpans and played with friends in his backyard while having barbecues. After his wife passed away, Mr. E became a long-term resident at the nursing home and now has had a small metal drum to play, and he joined the drumming group.

Mrs. F was taught the fiddle by a strict father. Subsequently, she joined the Celtic scene playing in sessions at pubs, played at home raising a family, or has been making music with other residents at the nursing home.

Mr. G was very extroverted playing cymbals in his high school, and college marching bands, but literally turned inward with his drum kit during married life. To keep the peace, he developed a soundproof room in his basement where he could let loose on his drums. He was focused on getting better in rehab, and returning home, with little interest in joining the drumming group at the facility.

Mr. H played the drums at parties and at home as a child and then started taking formal lessons with Mr. W. He would practice at home between lessons. Music school required a variety of additional skills from conducting, to music theory, and composition. His success as a professional drummer required regular practices and performances in large and small venues. At the nursing home, following the death of his third wife, he joined the drumming group, and engaged in other makeshift musical activities banging out a beat with chopsticks on Chinese food containers, and conducting with headphones on.

Whether at home with family as a child, or at the music shop in the community, Mr. I played the xylophone whenever he had a chance. As he got older, he excelled into the Brooklyn music scene, blending his klezmer sound with other genres. Occasionally, clubs had hecklers or drunks in the audience, but the bouncers made the problem short lived. At the nursing home, Mr. I listened to music with his earbuds but did not join any music groups. He was focused on getting better and going home and stressed his instrument was waiting for him.

Ms. J practiced with her two girlfriends for their guitar lessons they took separately with the same teacher. When they created a band (i.e., a string trio), and started rehearsing, things remained mostly unchanged. The various gigs provided new settings and audiences. Ms. J never married but would play at home alone, or for various boyfriends over the years, and her different pet dogs. Most of the boyfriends and pets encouraged her, but some didn't like her performances and were short lived as a result. She didn't like the drumming group at the facility but enjoyed the singing groups.

From the beginning, Mr. K didn't like practicing alone at home, preparing for his lesson, or playing for his teacher; he considered it too difficult. Yet, he persisted and gradually, playing the electric bass became easier. He avoided his high school friends because they did not like the jazz he preferred to play, but during his college years he played at bars with some jazz bands. He frequented jazz clubs from college days on. Music theory involved music analysis at home and in the classroom. Other music electives had other requirements. He purchased an acoustic bass in college and met his future wife. She loved jazz, too, and they engage in musical activities together, though their children were more interested in popular music. He was looking forward to being discharged from the facility and planned to spend time at his favorite place to play the bass (i.e., on his back porch), overlooking his garden.

Mr. L attended a grade school known for its music program. He played a 3/4 violin and participated in the music groups. They had school practices and performances, and he also had music homework. In high school, the pressure to excel influenced the characteristics of the setting he made music in, but ad hoc music sessions outside of school with friends continued to be more like the grade school situation. Mr. L had therapy for stage fright in his freshman year at college. His wife played the piano but passed away in her early 60s. He became depressed as a result, not able to enjoy music for a while, and just as he was recovering, and starting to make music again with his contrabass, he had his motorcycle accident landing him in the nursing home. His son brought in Mr. L's 3/4 violin from childhood that he tuned down with new strings and purchased a rubber mute. Mr. L enjoyed playing it like a bass and few, if any, complaints

came from the other residents.

Mrs. M's mother taught her how to play a toy harp at a very young age. She was an only child and played at home not realizing she might be driving her parents crazy. By elementary school she had a miniature Irish harp, and her mother shifted from instructing her, to playing with her since they had 2 harps. Eventually, she made friends with other musically inclined students, and they would play together. Some of them were nice, but others were difficult. When she was older, she had a variety of experiences playing in sessions at Irish pubs. After marriage and having children, Mrs. M found music to be a positive influence on family life. When her daughter heard about music activities at the nursing home, she brought in Mrs. M's lap harp.

Ms. N's appreciated her mother's approach to her, given her mother's skills as a music teacher. Ms. N was introduced to music in her preschool years, and started playing the cello during grammar school, when she started formal instruction. She continued lessons through high school. Mainly, she played at home and at school, then onto the Oberlin Conservatory of Music, where she played in the dorm on campus, an apartment off campus, at home on vacations, in music rooms at school, and in master classes. Then she auditioned for positions in professional orchestras and played all over the world. Although she remained involved in musical activities, she stopped playing the cello when she retired. She would rather listen to a CD of her music when she was at her peak performance, than try and play now.

Mrs. O played classic harp since her teenage years, starting at home in her room when her father was out. At college she took classic harp lessons as an elective every

semester. She played in her room, by herself or with friends over, and in the music department. After college she joined and performed with an amateur theater group and orchestra. The harp has been with her from her adolescence, through grandparenthood, and she played for everyone when they visited, even her father. Mrs. O missed not having it at the facility, sat in on some music activities, but just counted the days until discharge.

Mrs. P made music with her player piano in her basement as she memorized the fingerings while the keys automatically depressed for various songs. She would perform at friends' homes if they had a piano, without mentioning how she learned the songs. Several years prior to the study her daughter bought her a digital piano that could download songs and play them, not with keys that depress, but they light up and the music plays. She had practiced the scales, and was better at improvising as a result, and played for family and friends, in addition to playing for her own enjoyment. At the nursing home she listened to music on her phone, and the classical music station on TV.

Mr. Q took violin lessons starting 7th grade and practiced at home for the lessons. He eventually stopped playing, but picked it up again later in life, putting the Carnegie Hall channel on the TV, and improvising along. In order to better read music, he started taking YouTube classical violin classes, and was motivated to practice on his own.

Ms. R always had a piano in the house as long as she could remember. A friend taught her to play chopsticks. In 10th grade she started piano lessons, which she continued through high school. She played on her own, and also for friends. She didn't play much during her college years. Once she was working and living on her own, she bought a piano for her home and always played at home, never marrying. Late in life, she

took piano lessons at the Juilliard evening division, and she could practice there, in addition to playing during lessons. At the nursing home, she managed to get to the piano and play for an hour on a regular basis, while looking forward to getting home.

As a child, Mr. S practiced saxophone in his bedroom, where neighbors could hear, or more privately in the living room with his teacher. He had to demonstrate what he had learned for his father. During high school, he joined a street band, and played on the corner in the neighborhood. In college, he performed for teachers, students, and teacher assistants. He stopped playing after college, he married and moved to the North Fork on Long Island, and he started playing again. He played at home with family, outside with farm animals, and around home at dinner parties with friends. He stopped again after his wife died. Then at the facility, he had been playing alto recorder, which some people heard passing by, as did his roommate.

Mr. T made bird calls with his father hunting birds for dinner. Then he played the bugle, and other unkeyed horns in high school, practicing on his own, and played for his music teacher and other students. He dropped out of college, took a job as a stable hand at a hunt club, and perfected his bugle playing for the hunts. He married and had three daughters. They played together at home and other events. His wife developed Alzheimer's, and as his audience, playing took on new meaning, providing her a connection to their past together. when Mr. T became a long-term resident, his family continued to visit regularly, he enjoyed listening to music, and used a bugle mute so not to disturb anyone.

To reiterate, almost everyone practiced alone at home, played for family and

friends, had some lessons, formal or informal, and many have performed at either small or large venues, in situations indoors or outdoors, in addition to engaging in musical activities at nursing homes. All the different sets and settings appear to be consistent with the prevailing literature. McPherson and Welch (2018) discussed various music making situations ranging from casual gatherings with family and friends, to more highly structured assemblies in schools music studios, or community situations. They also discussed other extraneous settings including in an automobile, shopping centers, or while engaged in other activities (McPherson & Welch, 2018).

As noted in the review section above, Barbeau (2017) highlighted that MPA, a type of MPC reaction, was related to situational attributions (e.g., challenging, menacing, volatile, and uncontrollable). The expected or actual reaction of an audience can play a facilitatory or inhibitory influence on reactivity (Kendrick et al., 1982; Kenny, 2011; Kenny & Osborne, 2006), which was consistent with the emergent findings for all 20 participants. As also mentioned in the review section above, Kendrick et al. (1982) found that situations that involved harsh judgements from the audience or worries about the performance being compared with those of peers, increased reactivity. LeBlanc et al. (1997) had similar findings, and Rae and McCambridge (2004) discovered this also happened in music examinations. Kenny and Osborne (2006) found reduced levels of a type of MPC reaction (i.e. MPA) during solitary practice contrasted with increased levels during examinations. Other researchers discovered lower reactivity in solo performances compared with ensemble situations (e.g., Maroon, 2003; Nicholson et al., 2015; Salmon et al., 1989). Kenny (2011) specified how some MPC reactions (i.e., stress reactions) to

audiences can aggravate symptoms, or diminish them in more tranquil settings, such as, during solo practice or among friendly individuals depending on the relationships. In summary, all the different sets and settings identified in the current study, appear to be consistent with the prevailing literature cited in the literature review, and they appear to have had a positive, negative, or neutral influence on MPCs and performance, an issue that will be further explored in what follows.

Experiences of MPCs: Analysis of Similarities and Differences

In this subsection, I lift the rich coded terms directly out of the participants' narratives, and create representative tables in a transparent manner, while remaining true to the data and the individual narratives. Similar to what was done with the material derived from the literature reviews in Chapter Two, I group everything according to the following categories: (a) Affective; (b) Behavioral; (c) Cognitive; (d) Physiological; and (e) Spiritual. Then I compare, and contrast the tables derived from the participants' responses with those from the corresponding literature reviews. The continuum of MPC reactions is also analyzed in a subsequent subsection. In order to accomplish these steps without corrupting the data, I retain the original descriptors, lifted from the coded appendix of transcripts, in quotes. Overall, the findings from the nursing home residents in this study were consistent with the literature.

All participants reported that their MPC reactions varied with the changing sets and settings throughout their lives. Each MPC reaction fell under the category of affective, behavioral, cognitive, physiological or spiritual. The affective category was the most frequent, which is probably due to the fact that it is the umbrella term, and some of

the experiences that were coded as affective [AFF], might have been more precisely coded as one of the other categories, if more information had been available.

Additionally, it should be noted that when a participant had a physiological reaction, they often described a few physiological responses all at once (e.g., Mrs. B's heart rate, breathing and muscle tension at a gig, or Mrs. F's vasoconstricted cold hands, perspiration, quickened respirations and heart pounding). Although the entire synchronized reaction was only coded as one physiological reaction, each physiological response was listed in the discussion section (i.e., Table 21, *Participants' Component Physiology Associated with Musical Activity*). The decision to code the entire reaction, instead of each component response, reduced the number of physiological code frequencies that could have been listed. Both approaches to coding seemed reasonable, and the independent expert in the field concurred with the approach used.

In the following analyses of various MPC reactions, and the continuum of those reactions, the different MPCs of the participants are compared, contrasted, and discussed in light of the literature review. The materials selected to portray the different MPCs of the participants, and the relevant literature have been grouped by MPC categories, including: (a) Affective; (b) Behavioral; (c) Cognitive; (d) Physiological; and (e) Spiritual. The continuum of MPC reactions is presented in a subsequent section.

Affective

The current study of nursing home participant found that all 20 reported experiencing a variety of affective MPC reactions during their lives that ranged from both positive to negative responses. See Table 18 for findings related to component affects

associated with musical activity in the lives of the 20 participants. All the participants acknowledged that at some time or another in their lives, they experienced anxiety when engaging in musical activity, along with other negative emotions (e.g., Mrs. O's & Mr. T's anger; Mrs. C's apathy; Mrs. F's & Mr. L's depression; Mr. S's fury; Mr. A's & Mrs. P's guilt). Yet, everyone also acknowledged that at other times they experienced joy, along with a diversity of positive emotions associated with making music (e.g., Mr. E's elation; Mrs. M's & Ms. N's enthusiasm; Mrs. O's & Mr. S's excitement; Mrs. B's fun; Mrs. M's gratitude; Mr. Q's love, Mr. H's & Ms. R's pleasure; Mr. G's sexiness, and Mr. I's thrills). Overall, the participants reported that for the majority of their lives, they felt happy about their musical activities.

Notice the affective responses listed in Table 18 may also have behavioral, cognitive, physiological, or spiritual aspects associated with them. However, without additional specification, these responses cannot be categorized more precisely other than under the umbrella term of affect. Thus, if people say they were depressed at a given time (e.g., Mr. A; Mr. C; Mrs. F; Mr. L; Ms. N; Mr. S), some may mean they were sad (e.g., Mrs. F's sad affect), moving at a slowed pace (e.g., Mrs. C's behaviorally slowed reaction time), having thoughts about lacking confidence (e.g., Mr. K's unconfident cognitive thoughts), and losing appetite (e.g., Mr. H's physiological loss of appetite), while others may mean they were experiencing a crisis of faith (e.g., Mr. A's spirituality).

Table 18*Participants' Component Affects Associated with Musical Activity*

Reported Affective Responses	
Agitated.	Feels renewed drive.
Angry.	Feels social.
Annoyed.	Feels worthwhile.
Anxiety.	Fright.
Apathetic.	Fun.
At ease.	Furious.
Bored.	Good cheer.
Calm.	Gratifying.
Comforting.	Great pleasure.
Content.	Guilt.
Cool.	Happy.
Depressed.	Idyllic.
Disheartened.	Irritable.
Dread.	Joy.
Easy going.	Love.
Elated.	Mixed emotions,
Embarrassment.	Mournful.
Emotionally healthy.	No motivation.
Emotional wellbeing.	Panic.
Enjoyable.	Pleasant.
Enthused.	Pleasure.
Excited.	Powerful.
Fear.	Relaxed.
Feels best.	Restless.
Feels better.	Seductive.
Feels chill.	Sexy.
Feels fine.	Stressed.
Feels good.	Thrilling.
Feels grateful.	Tranquil.
Feels great.	Uneasiness.
Feels in control.	Uncomfortable.
Feels life's worth living.	Without anxiety.
Feels relief.	Wonderful.

The participants' affective reports, listed in Table 18, line up closely with the list in Table 8, which was derived from the literature review, and contains some pertinent affects associated with musical performance that researchers previously highlighted (e.g.,

Abel & Larkin, 1990; Barbeau, 2011, 2017; Craske & Craig, 1984; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lehrer, 1987; Reiss, 1983; Reitman, 2001; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Various affective reactions in the literature review, were studied when investigating MPA experiences and other factors, currently termed MPCs. Affects associated with other basic states, moods, and dispositional traits are included along with anxiety in Table 8, and also emerged in our findings (Table 18). Aside from anxiety alone, Lecuona et al. (2023) and Rodríguez-Carvajal et al. (2017), used the PANAS (i.e., the Positive and Negative Affect Schedule) to research both state and trait measures of negative affect (e.g., fear, disgust, anxiety, sadness, anger), and positive affect (e.g., enthusiasm, happiness, joy) on musical performance. The findings of the current study are consistent with these previous studies. Aside from anxiety, in the current study I found that every participant experienced joy, almost everyone reported happiness, and a couple mentioned enthusiasm (i.e., Mr. A, and Mrs. M). Lecuona et al. (2023) noted a robust relationship between MPA, and other forms of MPCs (e.g., negative emotions assessed by the PANAS). The negative influence of anger on musical performance was reported by Gavin (2012), and Kaleńska-Rodzaj (2020).

Mr. A, Mrs. F, Mr. L, and Mr. S all reported that periods of depression negatively influenced their music making, which was consistent with the negative relationship between depression and musical performance that was found by several researchers (e.g., Mineka & Zinbarg, 1996; Reker et al., 2014). A few studies explored happiness as a component (Hills & Argyle, 1998; Juslin & Madison, 1999; Kaleńska-Rodzaj, 2018), and

Racy (1991) studied the love-hate relationship between performers and their audience, and its effect on performance and creative ecstasy.

In summary, the findings of this study are consistent with the literature review in that the 20 nursing home residents who have actively engaged in musical education, practice, performance, and appreciation since childhood, did experience a range of affective, Musical Performance Components (MPCs), in various sets and settings (including audiences) throughout their lives engaged in musical activities.

Behavioral

Each nursing home participant in the current study reported experiencing a variety of behavioral MPC reactions that they experienced throughout their lives with music. See Table 19 for a list of the participants' reported component behaviors associated with musical activity. Every resident reported that, at different times in their lives, they all experienced events when their musical performance was impaired for one reason or another. A further discussion of how the components of musical activities influenced their performances, if at all, will be presented in the *Outcomes* section after reviewing the rest of the components, and the continuum of MPC reactions.

The participants' behavioral reports, listed in Table 19, line up closely with the list in Table 9, which was derived from the literature review, and contains some pertinent behaviors associated with musical performance that researchers previously noted (e.g., Barbeau, 2011, 2017; Craske & Craig, 1984; Kendrick et al., 1982; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lehrer, 1987; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Table 19

Participants' Component Behaviors Associated with Musical Activity

Reported Behavioral Responses	
Agitation.	Impaired musical performance.
Angry outbursts.	Interpersonal problems.
Avoidance .*	Keep distance.
Changes in appetite.	Lack of motor control.
Changes in effort. **	Lack of voice control.
Changes in sexual behavior.**	Relaxing.
Changes in social activity. **	Restless.
Changes in substance use (e.g., alcohol). **	Self-control.
Coping with stress.	Sleep problem (too much or little).
Dress differently.	Slowed reaction time.
Fidgeting.	Smile.
Fit.	Stop playing.
Freezing up.	Strong.
Hesitant.	Weak.

* (e.g., avoiding difficult passages, solos, auditions, practice, classes, or leaving early)

** (changes = increases or decreases)

From a theoretical perspective, Papageorgi et al. (2007) were concerned with the relationship of anxiety, the fight and flight reaction, attendance at school, and performance proficiency. Anxiety was also related to reductions in effort and avoidant behaviors. Yet classification of some behaviors may not be so easy given, for example, that Fredrikson & Gunnarsson (1992) found anxiety significantly related to various neuroendocrine and cardiovascular reactions.

Almost all of the participants acknowledged that, at some time or another in their lives, they avoided engaging in various musical activities, usually as a coping mechanism to avoid related affects (e.g., Mr. A skipping Latin Mass following concerns about surveillance; Mrs. D avoiding siblings who made fun of her causing her to stumble through the music; Mrs. F avoiding all opportunities to make music for a couple of years

after her husband's death; Mrs. O dropping out of a production when new members made her angry and depressed, negatively affecting performance). A majority of participants also acknowledged that their social activity dramatically changed (i.e., either increasing or decreasing), as a result of musical activity (e.g., Mr. G's social network expanded with the marching band and he started getting dates; Mr. H started venturing outside from his room and made friends at the drumming circle; Mr. I's world had been his local community, but expanded to a very diverse Brooklyn music scene; Ms. N's career led to travel, performing with different orchestras and audiences all over the world). Other residents reported different behaviors that influenced their music making (e.g., Mrs. C, Mrs. D, Mr. G, Mr. H, and Ms. J's had changes in sexual behavior; Mrs. C, Mr. H, Mr. I, and Mrs. M's had changes in substance use; Mrs. C, Mrs. D, Mr. H, and Ms. J's had interpersonal problems).

As noted earlier, some choices concerning various classifications needed to be made. Although various patterns of nonspecific and often unrelated behaviors were defined as agitation by Lindenmayer (2000), he also noted that regardless of the causation of agitation, certain medications that decrease noradrenaline or dopamine, or increase serotonin or GABA, can reduce agitation, which suggests agitation may be classified as a physiological reaction. For our purposes and others, the constellation of behaviors associated with agitation led to it being classified as a behavioral reaction, which was reported by several participants (e.g., Mrs. B, Mrs. C, Mr. G, Ms. J, Mrs. O, and Mr. S's anger or agitation).

Careful practice, while regularly engaging with one's instrument actively, is the

requisite way to develop the proper muscle memory and learn (Clark & Williamon, 2022; Ericsson et al. 1993). A musician's performance is uniquely affected by the direction, intensity, speed, and weight of movement, and it is essential to become more attentive and accustomed to these factors in order to improve musical expression, and technical skills (Paparo, 2022). The distinctive mannerisms musicians acquire under pressure, were emphasized by Hatfield et al. (2022) when they stressed how two musicians can perform on a par with one another when practicing, while performing on completely different levels when in a concert hall in front of an audience.

Platz and Kopiez (2022) called for research into more aspects of musical performance preparation than has heretofore been done i.e., researching “much more than the presentation of a highly polished realization of a score ... expressive gestures, facial actions, movements, and step length while entering the stage” (Platz & Kopiez, 2022, p. 84). As noted in the literature review, Valentine et al. (2022) emphasized that consistent patterns of muscle tension can impair musical performance, something Alexander (1932) attended to when advancing his technique for aligning the head, neck, and back. This problem did not go unnoticed with tension and muscle tightening being reported by at least a third of the participants (e.g., Mrs. B, Mrs. D, Mr. G, Mr. H, Mr. I, Ms. J, Ms. N).

Some behavioral components appeared less pervasive and were not as frequently reported by the participants. For example, Mrs. D reported being fit but she also had experiences of hesitating, freezing up physically and mentally, and lacking voice control. At times, Mr. Q, Ms. R, and Mr. T's restlessness would challenge them, whereas Ms. J might fidget. Mrs. C and Mr. H both experienced periods of slowed reaction time. I do

not mean to leave the reader with the impression that all reported behavioral components negatively influenced musical performance. Every participant in the current study reported a persistent effort to practice, practice, and practice some more. Several reported periods of relatively less practice, but when they occurred, they were relatively short lived compared with their lives making music.

Cognitive

The reported cognitive MPC reactions, listed in Table 20, are consistent with those listed in Table 10, which emerged from the literature review, and contain some relevant cognitions associated with musical performance discovered by researchers in the past (e.g., Barbeau, 2011, 2017; Kendrick et al., 1982; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lederman, 1999; Lehrer, 1987; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Participants reported cognitive aspects of MPA (a form of MPCs) ranging from negative thoughts, to ruminations, anticipation, sleep disorders, and concentration issues, that were consistent with what Salmon (1990) described, how they function as diversions and as prompts that can exacerbate anxiety. Furthermore, cognitions associated with MPA often attend to bothersome thoughts that also function as diversions and as prompts that can exacerbate anxiety (Salmon, 1990). Also consistent with the current findings, Kendrick et al. (1982) studied unjustified, superfluous, and disturbing cognitions including ruminations about inadequacies, and Kenny and Osborne (2006) found unwelcome cognitions, apprehensions, and other disruptions of attention and concentration can significantly impair musical performance.

Table 20

Participants' Component Cognitions Associated with Musical Activity

Reported Cognitive Responses	
Absorbed.	Irrelevant wandering thoughts.
Audiation.	Negative thoughts.
Changes in confident thinking.	Nightmares.
Cognitive flexibility.	Perfectionism.
Cognitive rigidity.	Positive thinking.
Concentration issues.	Racing thoughts.
Creative problem-solving.	Ruminating.
Daydreaming.	Self-consciousness.
Engrossed.	Sleep disorders.
Focused.	Slowed thinking.
Inattentive.	Vigilant.
	Worries concerning performance.

Every resident I interviewed, recalled experiences of various cognitive MPC reactions throughout life that ranged from positive to negative in nature. Table 20 presents these reported component cognitions associated with musical activity in their lives. Everyone admitted that they have sometimes worried when engaging in musical activity, along with other negative emotions (e.g., Mrs. B's worried about the path of least resistance; Mrs. D's worried about her siblings' ridicule; Mr. H's worried about failure and being dropped by Mr. W; Mr. I's worried about screwing up; Mrs. M's worried about physiological symptoms; Ms. N's worried about professional auditions).

Although cognitive reactions, such as worries about performance reported by Kendrick et al. (1982), were also present in the current data, the residents did not confirm the finding that emotional features of MPA had a lesser impact than cognitive features.

The opposite was not confirmed, either. Subramaniam and Vinogradov (2013) found that cognitive reactions related to basic states, moods, and dispositional traits (e.g., individual differences in sadness, anger, happiness, amorousness, or spirituality), can overlap with attention and concentration issues, while also being associated with anxiety. Indeed, Mr. H noted that while playing the drums during the period when he took lessons with Mr. W, he could experience a “general sense of wellbeing and be stressed out at the same time.”

As noted in the literature review, positive affect can improve cognitive ability, attention, concentration, problem solving, and creativity (Isen, 2000; Isen et al., 1985, 1987, 1991; Isen & Reeve, 2005). This was the case in the current study. Thus, for example, when Mrs. P was joyful about mastering the scales, it gave her more cognitive flexibility to improvise. Among the current findings, most everyone admitted having experienced very positive thoughts of confidence, focus, concentration, and accomplishment (e.g., Mr. A when praising the Lord; Mrs. C when using music to seduce a man in her young adulthood; Mrs. D when improvising Fado late in life; Mr. E whenever he banged out a beat as a child; Mrs. F when measuring up to other accomplished musicians at the facility; Mr. H when performing his assignment for Mr. W correctly; Mr. I when on top of his game; Ms. J when the sisterhood prevailed; Mrs. P when she finished memorizing a tune from the player piano; Mrs. R when reflecting on her skill). Some cognitive components were mentioned less frequently. For example, Mrs. A spoke of his audiation skills, and Mr. Q has great joy listening to headphones with a chopstick, imagining himself conducting at Carnegie Hall, or bowing and fingering his air violin, similar to people who like to play the air guitar. Others, such as Mr. H, and Mr.

I would fantasize or daydream about great musical success. Ruminations about more problematic concerns also occurred, such as, Mr. S philosophizing on the circle of life, and how he is back to playing a recorder instead of the saxophone, not to mention, wearing diapers. Overall, most everyone has very fond memories of their life in music.

Cognitive mindfulness can improve musicianship (Diaz, 2022). Arguments have been made for categorizing mindfulness in different ways (i.e., cognitive, physiological, spiritual, or the umbrella category of affect for lack of specificity). This issue will be addressed again in greater detail below, in the section on spirituality.

Physiological

The participants' recounted physiological MPC reactions, itemized in Table 21, are consistent with those listed in Table 11 of the literature review section above, and holds relevant physiology associated with musical performance that researchers previously noted (Abel & Larkin, 1990; Barbeau, 2011, 2017; Craske & Craig, 1984; Fredrikson & Gunnarsson, 1992; Kenny, 2006; Kenny, 2011; Kenny & Osborne, 2006; Lederman, 1999; Lehrer, 1987; Reiss, 1983; Reitman, 2001; Ryan, 2004; Salmon, 1990; Salmon & Meyer, 1998; Wolfe, 1989).

Every participant in the current study reported experiencing a variety of physiological MPC reactions during their life that impaired their musical performance for various reasons. For example, Mr. A's "heart raced, respirations quickened I worried, and didn't perform at par ... but when it subsided my performances improved and were exhilarating." Mr. Q "could hyperventilate, feel anxious and dizzy," and Mrs. B, Mrs. C, Mrs. D, Mr. E, and Mrs. F all reported heart palpitations.

Table 21

Participants' Component Physiology Associated with Musical Activity

Reported Physiological Responses	
Backache.	Nausea/vomiting.
Butterflies in the stomach.	Numbness/tingling.
Cardiovascular performance. *	Peripheral vascular constriction.
Cold feet .	Perspiration.
Cold hands.	Pounding heart.
Dizziness.	Respiratory performance. *
Headaches.	Shaky.
High blood pressure.	Shortness of breath.
Hot flashes.	Tiredness.
Irregular heartbeat.	Twitches.
Muscle pain.	Upset stomach.
Muscle tension.	Weakness.
Musculoskeletal performance. *	

* (performance = improved or degraded)

Mr. L reported experiences with a “pounding heartrate, perspiration, hyperventilation, feeling shaky, headache, and I would keep to myself avoiding conversations with other people.” After he started counseling for stage fright, Mr. L’s counselor:

... taught me various relaxation techniques and pushed me to develop an exercise routine to improve my cardiovascular system. He would have me time how long it took me to calm my body down while playing the Contrabass directly after a vigorous workout. At the end of a workout, I would sprint to my dorm and up the stairs to my room and immediately start playing, while using relaxation methods to calm myself. When I got good at it, the stage fright stopped happening, or at

least it was minimal, and a lot of the joy from childhood started to return, and my music improved.

As noted by Reiss (1983) different people often experience very different physiological symptoms of this sort, and some experience a constellation of several synchronous symptoms all at once. Mrs. F had the most diverse set of reactions. As a child she was especially anxious performing when her father was present. Her “breathing would quicken, my heart would pound, my fingertips and toes would get cold, I would sweat, feel nauseous, have a queasy stomach, and dizzy with a slight headache. I could really perspire.” She found that “it was hard to focus on the music, which clearly suffered.”

It should be noted that some of the physiological reactions noted in controlled studies and cited in Table 11 were not mentioned by any of the participants in the current study (e.g., endocrine performance, high blood pressure, immune system performance, neurotransmitter changes). These are reactions that can be measured by a skilled technician but are not as easily noticed by a participant’s subjective senses, which might explain the striking absence of these reactions in the reports of the nursing home residents. Most of the other reactions cited in the literature review, were reported by the participants.

Vasoconstriction causing cold hands or feet was reported by a couple of other participants. Ms. J indicated:

I noticed a general uneasiness, I felt tense, fidgety and a little worried about how I would do, and usually didn’t do as well as a result. I actually had a little stage

fright just before going on, palpitations, vasoconstriction, muscle tension and sweaty palms. It usually subsided once we were playing, and I didn't have it before going back on after a break.

Similarly, Mr. H had to ask his mother to turn on the heat while driving to his drumming lessons "because my hands and feet were cold."

Mr. T injured his back while playing his bugle going over a jump on horseback during a hunt. He explained, "It hurt when I played the bugle for a while. I had to do crunches and build my core muscles before it stopped hurting and my bugling was back to normal." Mr. S experienced muscle tension, aggressive behaviors, and what appeared to be significant synchrony between different components. For example, Mr. S reported being heckled "from the courtyard as I played the sax, which I dreaded, it was nerve racking, made me angry, tense and restless, I couldn't stand still, it sucked." This was consistent with research on synchronous and non-synchronous reactions, which found that greater desynchrony was associated with less emotional reactivity, while greater synchrony was associated with increased anxiety (Craske & Craig, 1984).

Once again, a reasonable debate could be had for classifying a couple of terms differently. For example, responding with shakiness can be seen as either physiological or behavioral. Research on neuromusicology, a term coined by Peretz and Zatorre (2003), was reviewed by Fancourt et al. (2014) and they found that the cognitive neuroscience of music may be classified as either cognitive or physiological in nature.

This area of research has delved into the neurobiology of harmony, rhythm, and other aspects of music (e.g., Molinari et al., 2003; Tramo et al., 2003), the neurology

underpinning music-induced affect (e.g., Juslin, 2009; Trainor & Schmit, 2003), the neuroanatomy of musical performance (e.g., Parsons, 2001; Parsons et al., 2005), and the psychoneuro-immunological effects of music (Fancourt et al., 2014). According to Altenmüller (2022), the intricate interchange between affective, behavioral, and cognitive components of musical performance is also buttressed by the participation of a considerable number of cortical and subcortical neurological regions of the brain during music listening and music-making undertakings. When the data are not available to make the determination between the different component categories (e.g., when dealing with a nonspecific sense of shakiness) the affective reaction category can be used as the all-encompassing term.

While most studies have attended to reducing pathological aspects of musical performance impairments, others tackled means for improving positive performance with mental proficiency, and physiological awareness training that were highly related to improved musical performance (S. Cohen & Bodner, 2019). Münte et al. (2002) researched the relationship between neurotransmitter changes musical performance. They found that improved mood, happiness and focus were related to optimal levels of Dopamine, and improved reaction time to challenges were related to optimal levels of Noradrenaline, while improvements in retention of information for solving new challenges, otherwise known as the process of neuroplasticity, were related to Acetylcholine. Several researchers have found that plasticity of the brain can be stimulated by musical activity at all levels of musicianship, improving emotional stability, sensory-motor control, long and short-term memory, and the general sense of

wellbeing for amateurs and professionals, and for the young of age, the elderly, and infirmed (Altenmüller, 2007; Altenmüller & Furuya, 2016; Schuppert & Altenmüller, 2022).

Spiritual

The reported spiritual MPC reactions, listed in Table 22, are consistent with spiritual experiences associated with musical activities found in the review of the literature, and summarized in Table 12 (e.g., Beck, 2006; Boyce-Tillman, 2007, 2016, 2017, 2018; Clendening-Wallen, 1993; Clift & Hancox, 2001; Elkins, 1988; Elliott & Silverman, 2015; Hays et al., 2002; Hays & Minichiello, 2005; Kang & Whittingham, 2010; Hendricks & Boyce-Tillman, 2021; Lee et al., 2016; Lykins, 2014; Mantie, 2012; Monteiro et al., 2015; Palmer, 2006; Randles et al., 2022; Smith, 2022a, 2022b; Smith & Silverman 2020; Van der Merwe & Habron, 2015; Van Gordon et al., 2015; Zoughbi, 2022).

Table 22

Participants' Component Spirituality Associated with Musical Activity

Reported Spiritual Responses	
Experiencing spirituality.	Sense of evil.
Inspirational.	Related to something greater than us.
Mindfulness.	Sacred.
Naturalistic well-being.	Sense of evil.
Sacred.	Spiritual euphoria.
Ineffable.	Spiritual well-being.
Inspirational.	Transcendent.
Mindfulness.	Wondrous.

Consistent with the literature on spirituality while drumming (e.g., Smith, 2022a, 2022b; Smith & Silverman 2020), Mr. H reported that when he was drumming, he “felt relief, able to put unwanted thoughts and stress aside, a great pleasure, mindfulness, it was transcendental.” Similarly, Mr. S reported that “as soon as I started playing a piece I liked, nothing could bother me, my mind and emotions just got lost in the music, it was wonderful, and transcendental.” As noted in the literature review section, a decision about how to categorize mindful, transcendental, and spiritual experiences needed to be made.

Several researchers have all raised this question (Newberg et al., 2003; Barnby et al., 2015; Lykins, 2014). Thus, Newberg et al. (2003) found significant similarities in brain functions when Franciscan nuns prayed, and Buddhists meditated, especially when they entered into deep spiritual contemplation. They highlighted substantial reductions in parietal lobe activity, responsible for spatial orientation, regarding where an individual’s own body ends, and the outside world starts. As a result of the reduction of neuronal firing in this region of the brain during spiritual experiences, they concluded that spirituality has a neurological basis. Similar neural activity was discovered by Barnby et al. (2015) when participants engaged in mindfulness practices compared with spiritual practices. Furthermore, mindfulness and spirituality may be viewed as corresponding concepts (Lykins, 2014). Thus, should deep spiritual contemplation be classified within the affective sciences as a physiological component, or as a spiritual component? I would argue for the latter category.

Beck (2006) studied spiritual euphoria, social solidity, and inspiration in cultures around the world and across time, and the findings are consistent with the participants' experiences. Mr. G said, "It was inspirational and exhilarating to march in the band," and Mr. E reported:

I am not what you would call a spiritual person, but I do recall times when I would lose myself in the music, like a trance, connected to the music in a way that seemed to surpass the performance alone. It's euphoric, but different than an emotion. I can't really describe it accurately with words.

Whether in Latin or English, Mr. A reported that while singing hymns, and prayers in Church, which was spiritual in nature, "I felt connected to the entire community and from time to time the sacred music truly connected me to the Lord who I praised with song, I could feel euphoric." Similarly, Mr. I said, "The pleasure I had throughout my life as a young Jewish boy all centered around playing Askenazi klezmer music on the xylophone," and he viewed it as a spiritual "form of praise to God." Mrs. B reported that she would sing at the "beach, parks, and the mountains, communing with nature [and] ... The great outdoors seems to give purpose to life and inspired me." Mr. L indicated that his

Joyfulness for life, for people, and I dare say, the universe when feeling transcendental, was instilled by my parents, and grade school. It's part of my personality, and was only pushed down for a little while as I matured through adolescence, becoming a man.

Mrs. O's report was consistent with the prior findings of Clendenon-Wallen (1993), who used music to facilitate a sense of well-being in adolescents who had been experiencing a sense of evil. In high school, Mrs. O felt "devilish" and "at times it was trance like, as if I traveled into another dimension. I felt lightheaded, distracted, and a little shaky. When she matured, and had more experience making music with her harp, she "started embracing my angelic side."

As mentioned earlier, when Mrs. D practiced alone, she sometimes felt:

... connected to something bigger than me, it is as if I am reaching out to my parents, grandparents and my Portuguese heritage, but I couldn't begin to put that into words, though when it happens, music just flows from me, time flies, it's like meditation, and I feel very accomplished, and able to improvise while creating in the Fado tradition.

In summary, half of the participants reported spiritual experiences associated with musical activities in their lives. Consistent with the literature, these experiences also appear related to a sense of physical, mental, social and psychological well-being.

Continuum of Reactions Associated with MPCs

The continuum of affect theory proposed by Boyle et al. (2014) would predict a range of reactions associated with Musical Performance Components (MPCs), from brief but intense states, to lower-level moods that tend to endure over a longer period of time, to dispositional traits that can be lifelong. They clarified the distinction further by defining states, moods and dispositional traits as: (a) Fleeting momentary and immediate feelings or states; (b) Enduring feelings or moods that last several days or weeks; and (c)

Usual feelings or dispositional traits that last years or a lifetime (Boyle et al., 2014). As the following examples illustrate, these theoretical predictions were realized in the responses of the participants in the current study.

Mr. A reported, “Singing always seemed to change the mood regardless,” improving his mood, whether he started off in a bad state (e.g., falling from his bike), or had already been in a good mood. Later, when he joined the Church choir, he was “eager with a lot of energy, feeling powerful and enthused from the moment I woke up until choir practice started each and every week.” Whereas, at university, he experienced, “Anxieties and worries building in the lead up to music exams or production ... but that usually subsided somewhere in the middle of the performances, which were exhilarating.” Similarly, Mrs. B reported, “Singing always makes me feel good but sometimes it is a bigger lift than others.” In the build-up to a gig she worried about picking the correct music to please her audience, so the band would be invited back. Once the audience “cheered and applauded, my worries subsided.”

Mrs. C experienced anxious moods leading up to performing due to unwanted male attention, with spikes in anxiety just beforehand that subsided some as she played. Later in life she experienced excited moods in anticipation of a performance, but it was not anxiety producing, as she felt able to influence the male attention on her own terms. Sometime, on the verge of performing a newly composed song in Greenwich Village, she had “mixed emotions” of apprehension and excitement. Mrs. D was generally anxious around her siblings, but her mood would spike if they were going to be around when she practiced or performed. Making music with her parents, without her siblings around was

always comforting. At the “Brooklyn Conservatory late in life, I was nervous much of the year, but I persisted and it became easier over time.” However, she would experience states of anxiety that spiked, “if I was running out of time in preparation for some sort of master class, performance or examination.” Normally, for Mr. E drumming of any type, “always made me feel better,” but he also experienced test anxiety” related to his “music electives” at college.

Mrs. F was an anxious type, as a child around her father in Ireland, but remain grateful to him for introducing her to the fiddle, her “great pleasure in life.” She reported spikes in anxiety when she had to perform in front of him, or played a piece with him. Ever since coming to the United States, she has had a “generally, calm and happy” disposition; playing her fiddle makes “life worth living” even in the nursing home.

Sometimes it is difficult to determine the difference between a mood that often occurs, and a general trait. For example, throughout his teenage years in high school, and young adulthood in college, playing in the marching band with his uniform, Mr. G felt “sexy.” I suspect there were times when that feeling would spike more than others, and it was clear it continued through his marriage, even when he started playing alone in his soundproof studio.

As a child, Mr. H had “the most fun I had ever had” when he received his drum kit. That changed once he started serious drumming lessons when he would have a general mood of anxiety for the week before lessons, a spike on the way there, followed by a sense of accomplishment during the lessons that “linger throughout the week” mixed with the anxiety about the next lesson. As a professional drummer, drugs and alcohol

eventually plagued him “leading up to a performance and then again afterwards, sometimes even during.” Ms. J noticed a clear difference in her moods when she “practiced by herself prior to gigs,” or practiced with the “sisterhood.” In the former case, she always experienced a “general uneasy” feeling, whereas in the latter case, she perceived “rehearsals as always fun.”

As Mr. K struggled with the guitar in the beginning, “More often than not, I didn’t like it ... Once the lesson was over, I always felt a relief.” As Mr. K’s musical skills improved, so did his sense of self-worth, and he started to enjoy the activity, he felt good, and the mood lingered; “Whenever I played ... the good feelings would persist afterwards.” At other times the good feeling would spike, “I felt especially good, and was more focused than others, and the music was better as a result.” Mr. L’s experience was the opposite, “Grade school [was] blissful ... playing his violin.” As he improved his skills in high school and at the start of college, he always “had stage fright panic right up until the music started ... [and] to a lesser degree in the days leading up to a performance.” Then “relaxation techniques [helped] ... to calm myself. When I got good at it, the stage fright stopped happening.”

Although not always that way early in life, as a member of various orchestras, Ms. N was generally “very professional, physically relaxed, without worries or anxieties. As a younger person, Mrs. P felt “confident,” and also “on some level, I felt like I cheated” the way she learned on a player piano, and she was a “little anxious during the days preceding” a musical performance, as a result. Later in life, she started to generally “feel like a real musician. flexibility to improvise, a lot of joy.” From early on in the tenth

grade, Ms. R started piano lessons, and “I was always so excited for a day or two leading up to our lesson. It was difficult to sleep ... I do not recall any negative reactions ... worries, nervousness or disheartening feelings.”

According to Ekman (1994), As mentioned in the literature review, transitory affective states are relatively brief occurrences with a specific start and conclusion. These spikes in affect were apparent in the examples above. In contrast, less intense but more enduring affects (e.g., days or weeks leading up to a performance) were also apparent in the examples listed. Ekman (1994) referred to these as moods, which last for a relatively longer period of time and tend to fluctuate within a smaller range of strength. Fisher (2000) further demarcated moods conceptually as residing between temporary affective states, and more enduring dispositional traits. Moods are comparatively less intense, but more stable, lasting a longer time than their corresponding affective states, whereas general tendencies that can last a lifetime, and are difficult to change, are referred to as dispositional traits (Boyle et al., 2014). Note that the enduring dispositional traits, although present in the illustrations presented above, they do not seem as frequently reported, and like moods, are not nearly as intense a spike compared with affective states.

To summarize this section, the findings from the participants coincide closely with the theoretical predictions of the Boyle et al. (2014) continuum of affect theory. Participants reported a range of reactions associated with Musical Performance Components (MPCs), from brief but intense states, to lower-level moods that tend to endure over a longer period of time, to dispositional traits that can be lifelong.

Outcomes

Each and every one of the 20 nursing home residents who participated in this study, reported instances in which the above-mentioned components of musical activities influenced their performances. They recalled times when MPCs negatively influenced performance, while at other times, they emphasized all the positive consequences that made them persist and fulfilled their lives. Additionally, some MPCs did not appear to have a dominant influence in either direction, but had a neutral influence, instead.

As examples, in her younger years, the unwanted male attention experienced by Mrs. C “impacted some of my performances” and her anxieties concerning Sister M in choir, made her “drip with sweat, as my heart pounded choke and it impacted my voice.” Mrs. D reported her “voice would tense up,” and she would “stumble through the piece.” Following her stressful experiences “at the Brooklyn Conservatory late in life,” Mrs. D became more confident, relaxed and able to count on her “muscle memory” and “performed at my best.” After his wife passed away, and he moved into the nursing home, Mr. E “did not really care if I got sick and died. I really missed my wife.” But then his son brought in:

... a little gadget with countless songs on it and ear plugs [and] ... small metal drums. It made all the difference in my mood, sense of well-being, and zest for life; I think I am much healthier both physically and mentally, especially now that we have the drumming group.

Potential Implications

At the outset, I originally wanted to identify the range of various components from those that may enrich, to those that may impede musical education, practice, performance, and appreciation in the lives of nursing home residents. The focus was on acquiring insights from participants engaged in musical activities, hoping this could cast light on their experiences, whether positive, negative, or neutral. The experiences of the residents have sometimes negatively influenced their well-being and commitment to engaging in music, but oftentimes they have had beneficial impact, or at least only neutral influences. Barbeau (2017) found that the advantages of music-making by seniors can offset the negative impact of musical performance anxiety (MPA), among other forms of MPCs. That appears to be the case with the 20 participants interviewed for this study. Residents offered valuable information on how their experience of musical performance contexts changed throughout their lives, shedding light on the differences between transient states associated with these contexts, longer-lasting moods, and potentially life-long dispositions, which could inform future research.

The focus has been on the 20 nursing home residents engaged in music making activities, and their life stories concerning experiences with musical education, practice, performance, and appreciation. In an effort to precisely define the theoretical constructs of MPCs, I explored and started to develop a consensus about them, including affective, behavioral, cognitive, physiological, and spiritual components across time. My research led me to findings consistent with the Boyle et al. (2014) continuum of affect theory, which predicted brief but intense states, lower-level moods that tend to endure for longer

periods of time, and dispositional traits that can be lifelong. The results of the template analysis were scrutinized against these predictions, which were realized in the data.

Furthermore, this research has advanced the field by providing knowledge that may overcome some limitations inherent in cross-sectional studies of MPA, while extending those insights to MPCs. Looking forward, the findings may also help focus future item development when creating and validating a new repeated measures digital diary research tool for MPCs. The gold standard would be to achieve acceptance into the *Buros Mental Measures Yearbook*, as a reliable and valid research tool at a minimum. The practical applications of such a research tool with separate component measures of individual differences in affective, behavioral, cognitive, physiological and spiritual components, may significantly advance music education research, possibly leading to further insights about how to manage MPCs. If the assessment tool was able to reach the higher standard and was approved for clinical purposes, it could be implemented and utilized to improve assessment procedures in nursing homes and elsewhere.

As a result of the findings of this study, I have expanded my standard psychological intake evaluation of all admissions to include some questions about each patient's musical education, practice, performance, and appreciation throughout life. Did they ever play an instrument, including singing, or take music lessons? When was the last time? How has their current condition impacted their musical activities, and what type of music do they like to listen to?

As for the implications and practical application of the knowledge acquired from this qualitative study, clearly it can help with understanding the nursing home residents'

motivations and hesitations to engage in music making activities while at the facility.

There appears to be a greater inclination to engage musically when an individual is a long-term resident rather than a short-term rehabilitation patient, even among people who normally engage in musical activity when home. In the latter case, the focus is more on physical and occupational therapies, reaching goals necessary for an appropriate discharge. Generally, short-term rehabilitation patients want help determining the most efficient way to build the strengths and capacities to go home, and they are less motivated to engage in activities they associate with becoming a long-term resident of the facility.

The development of some music activities that require a degree of physical exercise may help encourage participation by those asking for more opportunities to build strength. Of course, each person arriving at the facility requires a comprehensive assessment of their respective abilities and challenges, and the results of each assessment need to be discussed among the entire treatment team, including input from the music facilitator. The musical activities that are appropriate for one individual may be highly inappropriate for another, and what activities are called for in the first week of rehabilitation, will likely change over time, hopefully demanding more physical exertion while advancing through different stages of treatment. Whereas tapping one's foot to the music may be a start for one patient, standing up and taking a few basic dance steps might be next on the agenda for another. Just as some patients need to be wheeled into the gym to use the machines, while others walk there with a walker, attending musical activities at different locations in the facility can similarly help people build strength and accomplish their goals in therapy.

By educating short-term patients how specific musical activities tailored to their physical skills and limitations can speed up the rehabilitation process of building strength, more may choose to participate. It is probably also important to dispel any notions that the musical activities are only geared towards making long-term residency in the facility more enjoyable, since most of the short-term patients want to avoid that if at all possible. At the same time, it is also probably important to educate long-term residents on how musical activities can improve overall well-being (e.g., affective, behavioral, cognitive, physiological, and spiritual). Furthermore, just because a long-term resident may not be a good candidate for living independently outside the facility, building strength, albeit through musical activities or physical therapy, can make life at the facility better. For example, being able to transfer from the bed to a wheelchair, and from the wheelchair to the toilet without having to ring the bell and wait on a nurse or aide to help, can clearly improve the quality of life at the facility. It should be noted that in some cases long-term residents are able to achieve discharge home even though it may take longer.

In addition to the implications these findings have on how to engage the residents, their reports concerning experiences with musical education, practice, performance, and appreciation throughout life were consistent with the literature and highlight some of the MPCs to consider when trying to assess a person's musical capacities. The findings feature a variety of MPCs to facilitate across all types of musical situations throughout life: (a) positive affective responses, Table 18 (e.g., calm, content, elated, happy, love, pleasure, wonderful), (b) positive behavioral responses, Table 19 (e.g., coping with stress better, effort improved, relaxing, strong, smiling), (c) positive cognitive responses, Table

20 (e.g., concentration improvement, cognitive flexibility, focused, positive thinking), (d) positive physiological responses, Table 21(e.g., cardiovascular improvements, musculoskeletal improvements, respiratory improvements), (e) positive spiritual responses, Table 22 (e.g., enlightened, heavenly, inspirational, transcendent). Furthermore, the findings emphasize some MPCs to watch out for and/or minimize whenever possible: (a) negative affective responses, Table 18 (e.g., anxiety, disheartened, fear, sadness, stressed), (b) negative behavioral responses, Table 19 (e.g., angry outburst, avoidance, fidgeting, sleep impairment, weakness), (c) negative cognitive responses, Table 20 (e.g., cognitive rigidity, inattentive, nightmares, racing thoughts, slowed thinking, worries), (d) negative physiological responses, Table 21 (e.g., cold feet and hands, headaches, irregular heartbeat, nausea, upset stomach), (e) negative spiritual responses, Table 22 (e.g., sense of evil).

In closing, this study set out and achieved its goal of understand the constructs of Musical Performance Components (MPCs) in the lives of 20 New York nursing home residents who had actively engaged in musical education, practice, performance, and appreciation since childhood, and continued to engage in musical activities in their nursing home community.

Epilogue

Following the completion of this study, Mr. S reached out and mentioned one of the other residents had found a web page of mine in which I provided instructions for playing the traditional Celtic tin whistle.

<https://www.dropbox.com/s/op02wrff8icnapp/Tin%20Whistle%20Lessons.mov?dl=0>

Apparently, a couple of people decided to purchase tin whistles and used the lessons on the website to teach themselves, with plans to join in with those who already play Celtic music at the facility. Mr. S appeared to be flourishing in spite of his more obvious functional limitations and expressed his appreciation for all the opportunities to make music at the facility, which he credits for all the progress he has made.

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Supplemental Material

Please refer to Appendix 1 for the 20 verbatim interview transcripts.

APPENDIX 1

Verbatim Interview Transcripts

First Coded Interviewee, Mr. A

Dr. R: Can you tell me about when you first learned to make music?

Mr. A: My earliest memories were of my mother signing to me. She sang in a variety of languages. She used to say, "I speak and sing in 8 languages, English, French, German, Italian, Portuguese, Russian, Spanish, and Body language, some call it dance!" As a result, I learned to sing with her, and speak in English, French, German, Italian and Spanish from a young age. I have such warm memories about that time together. I loved it, I loved her. They say exposure to languages at a young age makes learning easy. I think it is the same for learning to make music. My grasp of Portuguese, Russian, and dance were never as advanced. I don't have as many memories of her dancing around the house or singing in those other languages. [AFF], [BENE], [AUD], [ENV].

Dr. R: People can have specific reactions prior to, and, or while performing music, which may persist afterwards; can you give me examples of reactions you had at different stages of your life? For example, they may include increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences.

Mr. A: When my mother would sing to me it was always comforting. She would get me to sing along and that was also very comforting. Of course, she did that for different reasons in different situations. After saying our prayers before going to sleep we would sing; but if she picked me up while I was crying after falling off my bike she would still get me singing along. Singing always seemed to change the mood regardless of how good or bad things were to start. [AFF], [BENE], [AUD], [ENV].

Dr. R: Were there any particular situations when singing with your mother failed to improve your mood, or wasn't nearly as successful, or any people you sang in front of that made singing with your mother less comforting?

Mr. A: I don't think so. I only remembering it improving the situation, maybe sometimes to a greater or lesser degree. That wasn't always the case in my life, but it was during childhood given the security my mother provided. I knew she would protect me. [AFF], [COG], [BENE], [AUD], [ENV].

Dr. R: Did that change at all when you were older and singing in different situations, for example, when your mother wasn't there?

Mr. A: I was an altar boy dating back to the days when Mass was conducted in Latin. I had to learn all the prayers and at high Mass we sang our prayers in Latin. At first I just memorized what to sing. There was a little stress during the learning process and I worried about failure sometimes but I got through it and performed well. [AFF], [COG], [DET], [BENE], [AUD], [ENV].

Eventually, I deciphered what the prayers were saying and then I really felt accomplished praising the Lord. [AFF], [COG], [BENE], [AUD], [ENV].

That was during the younger grades. I had to ride my bike to Church, often before the sun came up. We were paid with tips for weddings and funerals but regular Mass was all volunteer. It was fine, then in high school I joined the choir at Church. It was coed and interested me more than work as an altar boy. I actually met my future wife in choir, though we never dated then. After graduation we went to universities in different parts of the country. I didn't major in music, though I did take some opera courses and performed in several productions. Instead, I majored languages. We both returned home to Long Island and once again attended the same Church. The choir master when we were young taught us so much about music. It was a fantastic music program. I felt secure there and was happy to return home. [AFF], [BENE], [AUD], [ENV].

Dr. R: Let's discuss the Church choir more, and then turn to the opera classes and productions. What type of reactions did you have prior to, during or following choir practices, and was it any different for the performances during Church services?

Mr. A: I was pleased and eager with a lot of energy, feeling powerful and enthused from the moment I woke up until choir practice started each and every week. The same was true for Sunday Mass, it was wondrous, and I completely loved the performances, I was outstanding. I felt connected to the entire community and from time to time the sacred music truly connected me to the Lord who I praised with song, I could feel euphoric. [AFF], [COG], [PHY], [SPI], [BENE], [AUD], [ENV].

Dr. R: Was there any pressure trying to learn the difference pieces for Church service?

Mr. A: Not at all, the choir master, members of the choir and Church community made me feel wonderfully. I do know what you mean though. That wasn't the case at university. Opera classes were challenging. Singing was beautiful but challenging in French and Italian. I didn't care for the sound of German as much but strangely enough it was easier for me to sing. I did have some anxieties and worries building in the lead up to music exams or productions, but when it subsided my performances improved and were exhilarating. [AFF], [COG], [BENE], [DET], [CON EM], [CON BS], [AUD], [ENV].

Dr. R: How would you experience the anxiety?

Mr. A: My heart would race, respirations would quicken, I worried and didn't perform at par. [PHY], [COG], [DET], [CON EM], [CON BS].

Dr. R: Did you engage in musical activities in your adult life while raising a family and working?

Mr. A: As a language major, I was able to land a gig at the UN translator. My parents always questioned what kind of career I could find as a language major studying the languages of the world, including dead languages. They were really proud when I told them I worked at the UN. It wasn't just in the city. I also got to travel and on my off hours I would go to different opera houses, a few times my wife was able to join me on the trips, other times we vacationed in countries where I was fluent. I haven't performed since college other than at family gatherings, which we all enjoy. [AFF], [BENE], [AUD], [ENV].

Dr. R: You mentioned you attend the same Church from when you were young. Is the choir open to adults?

Mr. A: Yes it is but we would sit as a family and sing praise to God from the pews. I guess I could have joined the choir by the time our children went away to college and

started careers, but by then they were singing folk Masses with guitars and it didn't appeal to me. I was delighted when Pope Benedict approved bringing back the Latin Mass. I missed the beauty of the language especially in a High Mass. I'm not certain why but Pope Francis recently decided to relegate the Latin Mass to the basement where they conduct the AA meetings, refusing to let it be conducted at the main altar. I used to feel so safe at Church. Not being able to go during covid was bad enough, but when I heard FBI agents were infiltrating the Latin Masses and targeting Traditional Catholics it made me worried and uncomfortable. I recall a stranger coming to the Latin Mass and taking notes during it. He looked like the typical G-man in a trench coat. Maybe I was just getting paranoid, that would be for you to assess. What I do know is that going to Church has never felt secure since then, and I'm nervous the whole time, even when singing. I just don't enjoy going to Mass as I used to. I was always a democrat, though I don't recognize the democratic party of today. I never liked Trump and plan to vote for Robert Kennedy, Jr. The republican media say the justice department are targeting Catholics, but they exaggerate. It is really just those of us who like a Latin Mass. We have been deemed extremists. The sermons are all in English, and if they would listen they would discover most of them a very left of center and not extreme right ideology at all. In the beginning attending Latin Mass brought back the feelings I had as a child. Not anymore. I apologize for this tangent. I realize you aren't researching political science. It is just that this situation really changed how I feel about singing in Church. They're not feeding us to the lions, but it isn't comfortable anymore. [AFF], [DET], [AUD], [ENV].

Dr. R: How do you experience that discomfort? Do you have changes in behavior, thoughts or physical symptoms?

Mr. A: I don't wake up excited to go to Church, sometimes I just go back to sleep, basically I sleep off-and-on day-and-night, have nightmares and I even skip going to Church. I would say it's a mixture of nervousness and depression. My thoughts start racing about being targeted. It is really bad when I do go to Mass. Singing at Church doesn't relax me like it used to, and I feel depressed afterwards, or guilty if I skip Mass. [AFF], [COG], [BEH], [DET], [CON EM], [CON BS], [AUD], [ENV].

Dr. R: Were there other kinds of settings that you made music in, and what type of audience, if any did you have?

Mr. A: When alone out and about, especially in the car or going for a walk in a deserted area like the woods, or on the beach off-season I often sing, even in the classic shower situation, but only if no one is home. It is a habit of mine since a very early age, and I continued it my entire life. Singing was probably responsible for my demeanor, good health, level headedness, and good cheer all these years. Of course, I can't seem to find a spot where I am alone here at the facility. I thought about the inner courtyard, it's empty certain times of the day, but then I realized all the windows around it are rooms for the patients, and they would all hear me, especially if I was singing opera. [AFF], [BEH], [COG], [PHY], [BENE], [CON GD], [AUD], [ENV].

Dr. R: Are you engaged in any other musical activities here at the nursing home?

Mr. A: I don't sing or join any of the music groups. Frankly, I don't plan on being here very long. I am really working hard in rehab, building my strength and I hope to walk out of here in a few weeks. I do listen to music on my iPhone. If I started singing opera in my

room I think there would be some complaints. I have audiation skills so I can hear music in my mind without making any noise and I can enjoy that. As you probably know, it is a skill many musicians have. I don't hallucinate. [AFF], [BENE], [AUD], [ENV].

Dr. R: What are your musical plans for when you get home?

Mr. A: That is something I am looking forward to. My wife and I are planning a big Christmas party for our children, their spouses and especially for the grandchildren. After Mass Mrs. A and I have developed a duet about our love, family, and the Baby Jesus that we plan to perform for the kids. We are still working on the music, lyrics and choreography. We are having a wonderful time with it, I feel creative. We collaborate on the phone and work together when she visits. It's wonderful to have something to work on together. [AFF], [BENE], [DET], [AUD], [ENV].

Dr. R: That sounds fantastic. I am happy for you and that's for your participation today.

Mr. A: No problem, I enjoyed talking. Have a good evening.

Second Coded Interviewee, Mrs. B

Dr. R: Can you tell me about when you learned to make music thinking back and trying to describe how your skills develop?

Mrs. B: No music lessons for me. It was more like a party. My friends and I would just put 45s on the record player and take turns strumming a guitar one of us had. I was about 7 the first time and not very good at it, but that didn't matter because I could remember the words to all the songs better than anyone. It came easy to me, and was simply a lot of fun. I only had to hear the tune a few times and I had it. Like a lot of things in life, I tended to move in the direction of least resistance. Learning to play an instrument would have involved too much effort, I wasn't a vigilant person, and couldn't focus that much. So my career as a singer was launched as a result. [AFF], [BENE], [CON BS], [CON EM], [AUD], [ENV].

I joined a rock band that performed in local pubs when I was just 13 and continued through high school, as long as I didn't try to buy alcohol, I was good. [AFF], [BENE], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: People can have very specific reactions leading up to, or while performing music, which may persist afterwards; can you give me examples of reactions you had at different stages of your life, such as, increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences?

Mrs. B: If anything was ever uncomfortable I just wouldn't engage in it again. No struggles for me. Once I was living on my own, sharing an apartment with friends, getting enough gigs to pay the bills, was very stressful, but I couldn't just walk away like I did from playing an instrument. [BEH], [DET].

I seemed more stressed about getting work than other members of the bands I was in. They tended to have other jobs besides music. I just wanted to sing for my supper, so I took most of the initiative to go from venue to venue and negotiate gigs. Usually we would get a flat rate plus a percentage of the cover charge at the door. I worried, not about my performance, but about how many people would show up. If we didn't have a good crowd that liked the music it impacted the take and future bookings. Different crowds liked different types of music. I knew our performances were solid, but I never knew if the crowd would like the songs we chose for the gig. Going into a meeting with the different bands where we planned out the music for each performance was the most stressful. I was agitated and would try to prepare my arguments in advance, feeling nervous, worried about push back and once in the meeting I was still concerned but would get verbally aggressive if it started going against me. Then before the performances I worried and felt physically on edge before the doors opened. I don't know if it was my heart rate, or breathing, or muscle tension, or all of the above but my body was on edge, I had butterflies in my stomach, and I was worried. It would impact my voice but I wouldn't care about that, as long as it did not impact the crowd's support. I thought it always depended more on the songs we picked. If the room started to fill up,

and cheered and applauded, my worries subsided. [AFF], [COG], [BEH], [PHY], [DET], [AUD], [ENV].

Dr. R: *Were there other kinds of settings that you made music in, and what type of audience, if any did you have?*

Mrs. B: Sure, we used to on a whole variety of group outings, where we would practice. It could be the beach, parks, the mountains, I remember once when the echo turned our music into a fugue. The music always seemed better to me when we were out communing with nature. The great outdoors seems to give me an enthusiastic purpose to life and inspired me, especially when I'm singing. Eventually I married and had 5 children, which took priority in my life. I was a stay at home mom, didn't need to work, and had the luxury of raising my children myself. I no longer worried about singing for my supper, my voice was more relaxed and my singing was extraordinary." I enjoyed singing to the radio at home and in the car, and at church along with all the other parishioners. I never joined the choir. That would have required learning to sing certain notes so I could sing along with the rest of the choir and I didn't read music. Again, I followed the path of least resistance. When the whole congregation sings, different people sing at different pitches and it blends. [AFF], [SPI], [BENE], [AUD], [ENV].

As my children learned music my youngest daughter taught me to read music, and I started to study it more. Later in life, I joined a semi-professional choir group for a couple of years. I was surprised at how much fun it was to read music and be part of an actual choir, I excelled at it. I was well prepared when I joined, no anxiety. At a certain age, I stopped caring what other people think. [AFF], [BENE], [AUD], [ENV].

Now I sing to the radio and I join in different music activities here. Sometimes it is more fun than others. [AFF], [BENE].

Dr. R: *Do you know or have any ideas about what determines how much fun it is?*

Mrs. B: If I had the ability to easily figure out what makes a person feel better, I would be the psychologist here.

Dr. R: *Does the environment or audience have an impact?*

Mrs. B: These days it is probably more dependent on the general mood I start with based on how the day went. If I haven't heard from friends or family, if our meals weren't very good, as you know they can be variable, or if the news is really negative on a given day, I could start in a less than pleasant mood. Singing always makes me feel good but sometimes it is a bigger lift than others. [AFF], [BENE].

I tend to communicate with old friends and have not connected with many new people here, I tend to keep more to myself, but I must admit, I am never sorry when I do join in, singing with the people here. [AFF], [BEH], [BENE], [AUD], [ENV].

Third Coded Interviewee, Mrs. C

Mrs. C: Good afternoon, are you having a nice day?

Dr. R: Yes, I was outside for lunch, it's really a beautiful day, I love this kind of weather.

Mrs. C: I was in the inner courtyard for about an hour this morning.

Dr. R: I am glad to hear that, did you get to play or listen to music out there?

Mrs. C: No, not yet today, maybe later. [AUD], [ENV].

Dr. R: As you know, I'm here today because I want to find out more about your life making music. Can you tell me about when you first learned to make music?

Mrs. C: Sure, I was raised near Mexico City; we were not in Mexico City exactly, but it wasn't the suburbs either. Music was part of my family background. My father played guitar and performed in a Mariachi Band, mostly at cafes and neighborhood bars. It's where I started to play and had a significant impact on music in my life. [ENV], [AUD]. He knew everyone and they all knew him. I received guitar lessons from one of his poker buddies starting when I was nine. He lost in cards to my father but didn't have enough money, so he paid off his debt by giving me lessons.

I mostly enjoyed the lessons, but sometimes it was stressful. They were in the afternoons in our living room. He always poured himself whiskey from my father's cabinet during the lessons. [ENV], [AUD]. It always made me anxious, effected my learning, and went on for a couple of years, but one day he just didn't show up for my lesson and didn't show for the band or poker. No one saw him again and did not know what happened or how to reach him. My childhood lessons ended just like that.

Dr. R: So then what happened with learning to play music and developing your skills?

Mrs. C: As I got older, I would hang around with my father when he played with the band. It shaped my development. At the breaks various members of the band taught me the songs they were playing. They played from memory, and I had to learn that way for them, too. It was hard. There was not any sheet music. Sometimes I could find some sheet music on my own, but that was rare, and they wouldn't let me use it when practicing with them. [AFF], [BENE], [DET], [AUD], [ENV]

Dr. R: People can have specific reactions prior to, during or after performing music; can you give me some examples you experienced?

Mrs. C: I was so enjoyable to be taking lessons with Mr. P, the man who came to our house. It was exciting and I was a happier girl those days, and a good student, I practiced hard. Mr. P was easy going and didn't pressure me [BENE], [AFF], [CON EM], [AUD], [ENV].

Dr. R: Can you tell me about any attention or concentration issues, or specific thoughts you may or may not have had as a result of a pending performance, or during a performance?

Mrs. C: Back then? No.

Dr. R: What about emotional reactions, such as, feelings of failure, inadequacy, or nervousness, you may or may not have had as a result of a pending lesson, or during a lessons?

Mrs. C: There were times when I was nervous when I thought my father might be returning home during our lesson. I would get distracted thinking he would be mad to see Mr. P drinking his liquor. [AFF], [COG], [CON BS], [DET].

Dr. R: Would it impact your performance.

Mrs. C: I don't think I played as well as a result [DET].

Dr. R: What about when you played with the band members during breaks that you mentioned?

Mrs. C: It depended on which band member I played with. We played in the back alley, away from the patrons [ENV], [AUD].

Mr. Y was extremely demanding and expected a lot from me. He expected me to learn by ear and memorize each piece. I would search for sheet music between practices, but I never told him I did that. He made me nervous in anticipation of playing with him; sometimes I wouldn't be able to concentrate, and attend to the music in front of him as a result [AFF], [COG], [BEH], [CON EM], [CON BS], [DET], [ENV], [AUD].

But I think I learned more from him as a result [BENE].

Dr. R: What about behavioral reactions, such as, twitching, freezing up, or avoidance behaviors, as a result of a pending performance, or during a performance?

Mrs. C: Mr. Y was always professional and stoic, but as I matured some of the band members seemed more interested in flirting with me than teaching me music. They started to get familiar with their hands, and I don't mean with their instruments. It made me feel uncomfortable in those early days, especially when it happened [AUD], [ENV], [AFF], [CON EM], [CON BS].

I avoided getting too close and started dressing very conservatively [BEH].

Dr. R: What about physiological reactions, such as, increased heart rate, perspiration, or hyperventilation you may or may not have had as a result of a pending performance, or during a performance, does anything like that happen when you feel uncomfortable?

Mrs. C: My heart beats fast, my hands perspire, and sometime my fingers get cold, that has happened most of my life [PHY], [CON GD].

My heart can beat fast for other reasons, too. For example, when I am excited in anticipation of something or really happy, my heart races but my performances are right on target, I don't tend to perspire or get cold hands then, it is a bad sign when they happen together. [BENE], [PHY], [AFF].

Actually, I don't seem to get sweaty hands when playing anymore [PHY].

I think it stopped after menopause. They used to get really sweaty when I would have hot flashes. I perspired all over. Of course, that was separate from making music.

Dr. R: Think back and try and describe how your skills develop throughout life.

Mrs. C: I guess you could say I was a professional musician by my teenage years because I was good enough to make money playing at cafes [ENV], [AUD], [BENE].

But early on I was clumsy trying to handle the male attention as a result of my performances; I just wasn't very adept at it in the beginning [AUD], [ENV], [BEH].

I did not want to discourage tips but was conflicted. I loved to play but did not care for all the attention I was getting from older men. It bothered me, even at home practicing as I paced around the room [AFF], [BEH], [CON EM] [DET].

It actually wasn't as bad as I expected, once I started playing at a cafe I felt better and would stroll around, avoiding some of the more obvious problems. I learned to discourage unwanted attention without insulting any of the patrons, you just had to keep smiling, it was a lot of emotional work. [AFF], [BEH], [ENV], [AUD], [DET].

I grew into a very strong, fit, and confident young lady. I knew just how to get a man's attention, if I wanted it, especially while playing my guitar. They were exciting times. When practicing for a performance, if I knew someone I liked would be there, I included my approach to him in my practice [BENE], [AFF], [BEH], [ENV], [AUD]. Of course, sometimes the excitement was mixed with anxieties, but they did not outweigh the good times [DET], [AFF].

Dr. R: Did you have any other experiences making music when younger?

Mrs. C: In Catholic school I sang in the choir, it was an all-girls school. Sister M was mean, and she would hit us if we did anything wrong. During practices she would walk up and down the rows listening to each one of us ready to attack. She really disapproved of me once she heard I was going with my father to watch him perform with the Mariachi Band. I believe she decided to take it out on me from that point on [ENV], [AUD], [DET].

When it came to creating anxiety in me, she was the worse. My hands and underarms would drip with sweat, as my heart pounded away like a drum roll standing in front of her at school, I just couldn't think straight worried about her reaction if I made a mistake. No one made me feel like that before, or since. I guess some would say it was traumatic [COG], [AFF], [PHY], [CON BS], [ENV], [AUD].

It had a lasting impact remaining with me as I thought about her during the week prior to a practice or a performance [COG], [AFF], [CON EM].

Of course, the performances were not as bad as the practices. She wasn't able to walk up and down the rows, making it harder for her to pinpoint anyone's mistakes accurately, and she couldn't punish up in front of the audience [COG], [AFF], [PHY], [CON BS], [ENV], [AUD].

However, that did not stop her from punishing the entire choir at the next rehearsal if she thought our performance was below her expectations, so when I say the performances were not as bad as the rehearsals, I do not mean they were good [COG], [AFF], [PHY], [CON BS], [ENV], [AUD].

Dr. R: What kind of other experiences have you had making music after that?

Mrs. C: I think you know I moved to Greenwich Village in my late 20s when folk music was all the rage.

Dr. R: Yes, I recall.

Mrs. C: We were all hippies in the 60's, with Bob Dylan as our idol.

Dr. R: What reactions do you have before or during musical performances in those days?

Mrs. C: We often played in Washington Square to make some money from passersby, but it was comfortable, like our public living room; our apartments were too small for more than a couple of people to fit [ENV], [AUD].

But sometimes we would play in small gatherings at various apartments, which was usually a lot of fun [ENV], [AUD].

Everyone was against the Vietnam War. We would hang out in the park drinking coffee, beer and wine, smoking cigarettes, and pot, and of course our slogan was make-love-not-war, which we did a lot [BEH].

Music was always pervasive. We were wildly having fun; it was our goal to enjoy life and we were good at it [BENE]

Though I guess there were a lot of different feelings throughout that period. We always had time to speak up and protest what we thought was wrong in the world. Generally, I was happy making music and being with my friends. I tended to have good regard for them and myself [AFF], [COG], [BENE], [AUD], [ENV].

Life wasn't all roses; I did have some bad experiences around some people I played with or others who came around to listen. As creative as it was, I was still distressed while writing lyrics for folk songs, and preparing for the first time I shared it at the park. I knew my friends would appreciate the sentiment, but they were often political statements and not everyone walking through the park approved [AFF], [COG], [CON BS], [CON EM], [AUD], [ENV].

I usually felt great playing the guitar in public, but I was more apprehensive about singing one of my songs. Maybe the trauma of Sister M, but I do not think so, I wasn't scared of punishment for performing poorly like when I was a child, in the park I was worried and nervous about how my songs would be received; while composing, practicing, and performing, especially performing [COG], [AFF], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Did drugs, and alcohol or your sexual encounter impact how you felt or thought during those music making days?

Mrs. C: Yes, I was more relaxed after drinking or getting high with people; I just didn't think as much about my performances. If I made a mistake, it did not matter, we were having fun. Sometimes someone would get drunk, or angry, usually because of some jealousy, which changed the mood. Free love wasn't always free, but 9 times out of 10, it was great fun [AFF], [BEH], [PHY], [CON EM], [CON BS], [DET], [BENE].

Dr. R: Were your flings back then always casual?

Mrs. C: No, as you know, I met my hippy husband back then, and we gradually started to lead a more conservative life. I guess that was a sign of maturity, or maybe just getting old. We moved to Long Island and raised a family [BEH].

Dr. R: What happened with your music?

Mrs. C: I didn't play as much for a long time but slowly I got back into it and started exploring Spanish Celtic music, mostly in the comforts of my home. It was gratifying, I was absorbed in it. [BENE], [AUD], [ENV].

Dr. R: Can you tell me more?

Mrs. C: Performances were not very frequent and tended to happen at the drop of a hat when they family or friends asked me to play. So, there wasn't any time for concerns or anxiety leading up to it, no physical symptoms to speak of. Those were some of my best performances, I was focused, precise and engrossed in the event. Practicing alone at home tended to be more frequent, and always fairly relaxed and enjoyable. My children had their own families to focus on. [BENE], [AFF], [ENV], [AUD].

I started playing a lot more, mostly by myself at home, about a year after my husband died; it helped me cope with his loss, I wasn't capable right after he died and felt powerless, but with time it became a real comfort [BENE], [AFF], [ENV], [AUD].

Dr. R: What about during your time at the nursing home?

Mrs. C: I like to tell people it is like being back in Mexico City. Some people show respect for me and my music, or genuinely want to make music with me. It makes life pleasant for the majority of the time. For others it is as if they are putting a quarter in a jukebox, expecting me to perform for them. Then there are always a couple of dirty old men who have something else in mind and it may bother me briefly, but I always have a few pointed words to share with them before moving on. I was a strong young lady and now I am a tough old bird. As you may recall, there was a man that I enjoyed the company of. He was very kind to me, and I have great memories, mostly with music as a part of it but he passed away a while back. There hasn't been anyone since, but I still enjoy our little musical engagements here [BENE], [COG], [AFF], [BEH], [ENV], [AUD].

Dr. R: I'm sorry.

Mrs. C: I was depressing for a while after he died, and I didn't play at all for a long time, my reaction time was slowed, I was apathetic, but after a couple of months, I remembered how music helped after my husband died, so I forced myself back into it and quickly started to feel better, no need for antidepressants here. I do not think I'll risk another relationship because it does not end well around here. Music is more for my own pleasure and less entertaining residents around me. Maybe that would change if they started paying me to perform like it was back in Mexico City [BENE], [AFF], [BEH], [CON EM], [CON BS], [ENV], [AUD].

Dr. R: Are there any other experiences around music and music making here at the nursing home you would like to share?

Mrs. C: My old roommate also passed away. She was great she watched her TV and was out of the room a lot at activities. She never asked me to play for her but did not mind whenever I wanted to play music. I am not so lucky with my current roommate. I have to adjust more to keep the peace. I always enjoyed playing with Mrs. F, the Irish lady who plays Celtic music all the time with her fiddle. Now it is better if we play in her room, but we just don't play together as much as we used to. It's still fun though sometimes other want to join in, which is ok with me most of the time [BENE], [DET], [AFF], [ENV], [AUD].

Dr. R: I want to thank you for this. I will transcribe everything and then try and organize it according to themes. When I am done, I will share it with you in case you have any comments or corrections to offer.

Mrs. C: Thanks Dr. R, I'll look forward to it.

Dr. R: Thanks again, Mrs. C., enjoy the rest of your day.

Fourth Coded Interviewee, Mrs. D

Dr. R: Can you tell me about when you learned to make music?

Mrs. D: My parents were from Portugal, in and about the Lisbon area, and they listened to Fado on their old phonograph all the time. My sisters and brother, and I heard it day and night. My mother often sang along, and my father played his Portuguese guitarra. The tunes can become overly mournful for the liking of some, but I love it, especially the songs about the sea, and relationships, which can be sexy and reflect deep feelings of love. Eventually, I learned to sing first and then studied the guitarra. I didn't have any formal training, but my parents taught me everything they knew. They were fantastic music teachers. Let me correct that, I never had any formal music training as a child, other than what my parents taught me. Our home was like a mini music school. **[BENE], [AFF], [AUD], [ENV]**.

Then when I was semi-retired, I studied and took private lessons at the Brooklyn Conservatory. It was challenging and a lot less supportive than learning when I was young. I was tense before, during, and between meetings.

Dr. R: Let's focus on childhood first; can you give me examples of reactions you had at different stages of your musical life growing up?

Mrs. D: I was anxious as a child because my brother and sisters would make fun of me and I would hesitate, freeze or muddle through a performance. It was especially bad when they had their friends over who used to laugh at me, too. I would avoid them if possible. I started to become anxious beforehand, and tense up when I knew they would be present. **[DET], [BEH], [COG], [PHY], [CON BS], [CON EM], [AUD], [ENV]**.

I never felt badly when practicing with my mother or father alone. In fact, I felt good, was more focused, physically well, emotionally relaxed, and able to practice more effectively. I looked forward to showing off my skills. **[BENE], [AFF], [BEH], [COG], [PHY], [CON BS], [CON EM], [AUD], [ENV]**.

Dr. R: When you say anxious, what do you mean?

Mrs. D: I would get muscle twitches, my voice would tense up, my heart would beat fast, I would worry about what they were thinking and might say, and I would stumble through the piece. I never felt uncomfortable as an adult playing for my husband, children, and friends. Those were the best times. At home with my husband I would use music in a seductive way, and then with my children I always felt like I was passing down my cultural heritage to them, of course with friends, it was all just friendly and entertaining. **[DET], [BENE], [AFF], [COG], [AUD], [ENV]**.

In contrast, I really felt like I did not measure up once I started at the Brooklyn Conservatory late in life, it negatively impacted my self-esteem during the first year, even my Fado performances were less enchanting. I was nervous much of the year, but I persisted and it became easier over time. The conservatory really helped me refine my skills. **[DET], [BENE], [COG], [AFF], [AUD], [ENV]**.

Dr. R: Were there other kinds of settings that you made music in, and what type of audience, if any did you have?

Mrs. D: Well, let's see, I already mentioned making music at home. When I was younger I was one of the first to buy a Martin backpacker acoustic guitar when they first came out

in the early 90s. I took it everywhere. I especially loved playing in the tunnel under a bridge in Central Park, the sound was amazing. I played on park benches, at bus stops and down in the subway, not for money, just for fun. There is something anonymous about the city regardless of how many people are around you. I felt fine, the music was fine, and I didn't care what people thought, they were strangers to me. Attending the conservatory was very different. There they had practice rooms you could sign up for. I spent a lot of time in the practice rooms with a whole variety of emotions depending on what I was practicing, for what purpose, and where along in the process I was. Overall, I was nervous and it was greatest if I was running out of time in preparation for some sort of master class, performance or examination. The stress would make it harder to accomplish my task. At other times, I was just reviewing pieces I knew well, trying to really lay down the muscle memory, they were the least stressful, and I always performed at my best. Keep in mind, I might have been alone in a practice room built to isolate the sound, but people were always lingering around outside the door in the hallways. **[AFF], [BEH], [COG], [PHY], [CON BS], [CON EM], [CON GD]**.

Dr. R: You have mentioned emotional, behavioral, cognitive and physiological aspects of your music making during your life, what about now, and have you ever had other reactions we haven't discussed?

Mrs. D: Now Fado is a relaxing enjoyable part of my life. I have made a few good friends through music, and they seem to truly appreciate it when I perform. I'm lucky that my roommate enjoys it, too. **[BENE], [AFF], [AUD], [ENV]**.

Sometimes when I practice alone, I felt connected to something bigger than me, it is as if I am reaching out to my parents, grandparents and my Portuguese heritage, but I couldn't begin to put that into words, though when it happens, music just flows from me, time flies, it's like meditation, and I feel very accomplished, and able to improvise while creating in the Fado tradition. I've written a few songs to my husband who passed 9 years ago, I think they are among my best work. He was German, not Portuguese, but he loved my music more than anyone. **[SPI], [AUD], [ENV]**.

Dr. R: Have you always composed Fado songs and how does it feel different, if at all, to compose rather than perform?

Mrs. D: No, I only started composing after attendance at the conservatory. It was stressful at first, but the result has been well worth it.

(the physical therapist entered the room).

Dr. R: We will end there, PT takes precedence over most everything else here so I'll let you get to the gym. It's usually the fastest way out of here. Thanks for sharing with me.

Mrs. D: That's for me, I'm ready to go home as soon as possible. Thank you for all you do Dr. Reiss.

Dr. R: We are hoping for that, too; have a good workout, and nice afternoon.

Fifth Coded Interview, Mr. E

Dr. R: Can you tell me about when you learned to make music?

Mr. E: I was always banging on things to make music as a child. It relaxed me and a great way to get out any frustrations I was experiencing.

Dr. R: Frustrations from music or other things in life?

Mr. E: Music never frustrated me in those days. Whether I was alone or with friends, at home or out and about, making music, and listening to it always made me feel better, more confident, more positive thinking, calmer, more relaxed, yet elated at the same time. [BENE], [AFF], [COG], [PHY], [AUD], [ENV].

Dr. R: Are you saying neither the audience nor the situation in which you played impacted your music?

Mr. E: I wouldn't say that. I would feel more relaxed, or more stressed, or even just average playing around different people, or in different situations, but in every case, once I started banging out a beat, my mood improved and I felt better. [BENE], [DET], [AFF], [AUD], [ENV].

Dr. R: Was the stress beforehand in anticipation of performing for or with different people, or was it for other reasons unrelated to playing music?

Mr. E: Different people and situations resulted in different feelings, good or bad, and the way I felt always had consequences on the way the beat initially sounded. Some were more fun no matter what, and others were not as much fun, it just wasn't right. Other things besides the plan to play music could impact my moods, but once I started knocking out a beat, my mood always improved, as did the music as the beat rolled on. As a teenager I joined the 1st Cavalry Division and fought in Korea, sometimes I would bang out a beat on something but I had no strict musical education to speak of. The only negative experiences were if a senior officer complained and ordered me to keep the noise down, but I always complied, often just banging out the beat in my mind so only I could hear it. Any stressful feelings were always short lived. [DET], [BENE], [AFF], [AUD], [ENV].

Later, I used the GI Bill for a bachelor degree in engineering and took music theory and drumming courses as electives. That was the only time I experienced anxiety related to musical performances. I get test anxiety, and sweat through music exams. My heart felt out of control just before and during the exam, I worried I would mess up, which I did. I was nervous for several days leading up to exams, as I prepared. It affected my performance. [DET], [AFF], [PHY], [COG], [AUD], [ENV]. It's strange, I saw a lot of combat, but never had PTSD or anything like that, only to be done in by college examinations.

Dr. R: And what about after the War, did you continue with music, and what emotional, physical, cognitive or spiritual experiences, if any, did you have making music?

Mr. E: Oh, yes. After graduation I became an apprentice in the trades, sheet metal work, to be precise. It was the best paying job among all the different trades at the time. Eventually I started my own company. It started off small but later on it grew to about 100 employees. Running a business wasn't what I was trained for, even the small one at the beginning. I was spending more time as a business manager and less time working with

my hands, so one day I decided to fabricate my own set of different size steel drums or steel pans as they are called. Tenor pan, double tenor pan, double seconds pan, double guitar pan, and a cello pan. I played with friends mostly in the backyard throwing barbeques. I made the barbeque pit myself, too. That was one of the best times of my life; we had so much fun playing together. I met my wife there, too. She was a friend of one of our band member's girlfriend and came to our barbeques. She thought I was the sexiest thing she ever ran into, and playing the drums for her did it for me, too. [BENE], [AFF], [AUD], [ENV].

She had some piano lessons when younger and still played a little. We had 5 children together and they all studied music to one degree or another. My oldest son picked up the drums, though he preferred a drum kit and rock-and-roll over my Caribbean holiday sound on the steel drums. I enjoyed my wife's, and our children's music making, but never really played along with them. When playing at home they would ask me to join in, but I avoided it. They had different styles, ones I liked to listen to, but not play myself. To tell the truth, they were all better musicians than me, and I did not think I could compete. [AFF], [BEH], [COG], [AUD], [ENV].

Dr. R: How have your experiences been making music here at the nursing home?

Mr. E: My wife had been caring for me at home but she caught the China virus early on. The last time I saw her was when the ambulance came to take her to the hospital. My children all took turns taking care of me while she was in the hospital. They didn't get to see her either. She died all alone in there and I couldn't let the family continue to disrupt their lives caring for me once I realized this would be permanent, so I moved in here. It was at the height of the China virus so we were all isolated in our rooms. Some family would come and tap on the window and wave and call me on the phone but it was isolating. To tell the truth, I did not really care if I got sick and died. I really missed my wife. I was rather raw about losing her. It wasn't really living and I did not care much for music, it sounded like a lot of angst. Once they started approving family members for visits with masks, my oldest son brought me in some sort of little gadget with countless songs on it and ear plugs. I also asked him to bring in one of my small metal drums. It made all the difference in my mood, sense of well-being, and zest for life; I think I am much healthier both physically and mentally, especially now that we have the drumming group. I never miss a session. And they let us go out on pass with family. Getting a meal now and then at a good restaurant can really make up for some of the meals they serve up here. [AFF], [BEH], [COG], [PHY], [AUD], [ENV].

Dr. R: Have you ever had a spiritual experience making music in your life?

Mr. E: I am not what you would call a spiritual person, but I do recall times when I would lose myself in the music, like a trance, connected to the music in a way that seemed to surpass the performance alone. It's euphoric, but different than an emotion. I can't really describe it accurately with words. [SPI], [BENE].

Dr. R: That seems to capture just fine, thank you for your time today.

Mr. E: Have a good afternoon Dr. Reiss.

Dr. R: You, too.

Sixth Coded Interview, Mrs. F

Mrs. F: Hello Dr. Reiss; how have you been?

Dr. R: I'm good Mrs. F, and how have you been.

Mrs. F: I have been better, but today is a good day.

Dr. R: Well then, if it is ok with you, I would like to find out more about your life making music.

Mrs. F: Where do you want to start?

Dr. R: Can you tell me about when you learned to make music?

Mrs. F: I grew up in Ireland, Galway to be precise, and my father played the fiddle. He taught me everything I know. He had an interesting way of holding his fiddle that I could not master. He held it between his hand and his bicep rather than under his chin, but I didn't know that then. Instead, I sat with it in my lap and played it like a cello; it has brought me great pleasure in my life [BENE]], [AUD], [ENV].

Dr. R: Some people have different reactions with the stress of a performance, can you tell me how you felt playing with your father, or for your father, or others back then.

Mrs. F: I was anxious performing both for and with my father, though I cannot say for certain it was about the fiddling. I was always on edge around him, no matter what. He was extremely demanding of me in all areas of life. Actually, I was generally nervous all the time and would be nervous playing for others, too, back then. But I was more nervous when he was there. He expected so much of me, but never treated me badly, so I never really understood my reaction. [AUD], [ENV],[CON GD], [CON BS], [AFF].

Dr. R: What specific types of anxious reactions did you have when playing the fiddle for your father?

Mrs. F: My breathing would quicken, my heart would pound, my fingertips and toes would get cold, I would sweat, feel nauseous, have a queasy stomach, and dizzy with a slight headache. I could really perspire, it was hard to focus on the music, which clearly suffered [AUD], [ENV], [PHY], [CON BS], [AFF].

Dr. R: What about performances when he wasn't around; did you have similar reactions?

Mrs. F: In those days I would have those types of nervous reactions, even when I wasn't playing, but to a lesser extent. Sometimes I played with girlfriends at one of our houses, and I would experience anxiety then, too, but not nearly as anxious as when my father was around and the music wasn't as impacted. Basically, I learned everything from my father and on my own [AUD], [ENV], [PHY], [CON BS], [AFF].

Dr. R: Did you perform on any other occasions?

Mrs. F: Not really, just with friends at Trinity College in Dublin. I never studied music as an academic endeavor, but I would attend some sessions at pubs, though I never brought my fiddle with me. I was too nervous and self-conscious for that. I didn't feel confident enough. [BEH], [AFF], [COG], [ENV], [AUD].

At least not until I moved to the United States, when I was 28. New York City had a vibrant Celtic music scene and I blended right in. I started carrying my fiddle around whenever I went out to the pubs and usually joined in at sessions. It was exciting, I loved it and it became a routine; after work each day. Back then, I started as a secretary, then an

office manager and an administrator. Whenever I changed companies it would result in a nice raise in salary. The mix of people at the pubs each evening made it relaxing to play. They all had different skills. I wasn't the best, but was better than most. At least I thought so. All those anxieties seemed to slip away. Maybe it was just getting up the strength to leave home and move to the land of the free. Don't misunderstand me. I could still have experiences when I would have all the physical symptoms I mentioned before, but they were never as enduring, pervasive, or extreme. [BENE], [PHY], [CON EM], [CON GD], [CON BS], [AUD], [ENV].

Dr. R: What about after you married and started having children?

Mrs. F: At that point life changed, I played for my husband, he loved my fiddling and I loved playing for him; my children enjoyed it, too, except my eldest son. Growing up he didn't care for my fiddling. As a child he seemed to want to completely embrace everything American and ran away from his Irish culture as fast as he could. Of course, that changed during his time in the NYPD and the fire department; he's working on a second pension now. [BENE], [AFF], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Can you tell me about any emotional reactions when playing during those years?

Mrs. F: For whatever reason, by the time I married and had children, I stopped having anxiety. I was generally, calm and happy. [BENE], [AFF], [CON EM], [CON GD].

Dr. R: No physical symptoms at all?

Mrs. F: None.

Dr. R: What about other reaction associated with playing music, good or bad reactions, be it emotional, behavioral, cognitive, physiological or even spiritual?

Mrs. F: Fiddling would always make me feel content, happy, relaxed or joyful. I made for a pleasant atmosphere around the house, though as I mentioned, my oldest son didn't care for it and would go to his room and put headphones on, which was fine. Music was a great pleasure for me and my husband after the children grew up and moved out on their own. [BENE], [AFF], [CON EM], [CON GD].

I did not play much after I lost my husband. I was depressed after his death, and that depression killed all my motivation for a while. I could not think straight to cope with all the decisions I had to make. I withdrew from people, from music, from living. I was sad all the time. Even when the kids visited, I wasn't up to playing for them. I put down my fiddle for a couple of years, avoiding all opportunities to play, and when I finally picked it up, I tended to play melancholy airs. [DET], [AFF], [BEH], [CON EM], [CON GD]. Eventually, I branched out to some lively jigs, reels, and hornpipes as my mood improved and I started getting out with friends and enjoying things again. I even joined in for few sessions at the Irish pub, but after my accident I never made it out of rehab and my family moved me in here permanently [BENE], [AFF], [CON BS], [CON EM], [CON GD].

Dr. R: Did your music playing change once you were a resident here?

Mrs. F: At first I was focused on physical exercise and trying to get home. I did not have my personal things with me so I couldn't play the fiddle even if I wanted to. Once I moved in permanently my oldest son helped me move into this room and delivered my fiddle to me. He even asked me to play for him and appeared to really enjoy the moments we had together. It has been a routine whenever he visits now. [BENE], [AFF], [CON BS], [CON EM]. I also discovered there is a whole community of musicians here, some

who are accomplished, others not so much, but music has me reengaged with people, I'm happier when I am playing, whether alone or in a music group, and I developed a nice friendship with Mrs. C, she plays the Spanish guitar. **[BENE], [AFF], [CON BS], [CON EM]**. We used to play a lot before covid but we got out of the routine. I was depressed again during that period with so many people dying, and being isolated was no fun at all. I would still play my fiddle but not as much. I would go through periods for a week or two of not playing, but it didn't last years, like when I was depressed following the loss of my husband. **[DET], [AFF], [BEH], [CON BS], [CON EM]**. Mrs. C still invites me to wheel myself over to her room on occasion and we play and talk for an hour or two. Lately, she has been coming to my room more. Overall, music makes life worth living, both in the moment, and over time. **[BENE], [AFF], [BEH], [CON BS], [CON EM], [CON GD]**.

Dr. R: I really appreciate your time, it was great hearing about your life with music.
Mrs. C Well, thank you, and I'll see you next time.

Seventh Coded Interview, Mr. G

Dr. R: Can you tell me about when you learned to make music?

Mr. G: I played cymbals in my high school, and college marching bands. Then I tried to get my son involved, first with a triangle, bells, bongos, and eventually a small drum set. I ended up using them more than him and gradually added to the set until it was a full drum kit. [AUD], [ENV].

I'm crazy about the drums, and never understood my son's generation, or any since then for that matter. What boy wouldn't like the drums? [AFF], [BENE].

Dr. R: Let's start with the high school band. How did you learn to play the cymbals, and can you give me examples of positive or negative reactions you may have had playing the cymbals, either from emotional responses, behavioral changes, thoughts, cognitive skills, physiological reactions, or even spiritual experiences?

Mr. G: I can categorically say, I never had a spiritual experience with the cymbals, maybe an out of body experience stoned out of my mind with friends. At the time, it might have seemed like fun, but it definitely wasn't anything that could be construed as a spiritual experience. [AFF], [BENE], [ENV], [AUD].

As for learning the cymbals, I just attended the first meeting of the band one year with some friends. The band leader asked us who had some experience with music. Since I had none, he decided to give me the clash cymbals, showed me how to hold them while marching, gave me a crash course in how to play them, and in the beginning he always signaled me when he wanted me to join in. It is probably one of the easiest instrument to play in a marching band. It was a blast. We mostly played at sporting events. I was never good at sports so the cymbals helped me become part of the group. It was usually a blast. [AFF], [BENE], [ENV], [AUD].

But I was a little immature in those days so when I first learned to use them, I would go up behind people and startle them with the cymbals, it was mostly girls I was interested in. I learned quickly that it did not work very well and just left me embarrassed and alone. [AFF], [DET], [ENV], [AUD].

By my junior year we were a top notch band. I looked great in my uniform and had lots a friends including girlfriends. Membership in the band was part of my identity. Every performance was like a party. Actually, afterwards we would go out and party. It was inspirational and exhilarating to march in the band playing the cymbals, I was good, and by my senior year I started feeling sexy as a result of all the attention we were getting. I was top notch in my performances as a result. Who knew cymbals could get you a date. It only got better in college. [AFF], [BENE], [ENV], [AUD].

Dr. R: Did you study music at college?

Mr. G: Not for credits but the band was an education in and of itself. The band leader was really organized and required an awful amount of work on our part. We practiced almost as much as the sports teams we played for. Frankly, I did not care for all that was expected of us. . [AFF], [DET], [ENV], [AUD].

High school was more relaxed, it was more on the level of friends getting together for fun activities. [AFF], [BENE], [ENV], [AUD].

In addition to all the practice, our band leader gave us homework and was critical of anyone who failed to meet his expectations. He would call us to task in front of everyone. It was stressful, I did not like him. It made me tense, on edge and self-conscious. [AFF], [COG], [PHY], [DET], [ENV], [AUD].

Of course, the party nature of our team off the field made it all worthwhile. [AFF], [BENE], [ENV], [AUD].

Dr. R: What about after college? Did you continue making music?

Mr. G: No. Well, not until I was married and trying to introduce my son to music. I was a sergeant in the police department. I doubt you remember me but you were a police psychologist for the NYPD when I started at the academy.

Dr. R: That would have been back during David Dinkins or Giuliani's administration, correct?

Mr. G: Yes, Mayor Dinkins did the hiring and Giuliani took the credit.

Dr. R: That's correct. I don't think Giuliani would have invested all the money to expand the department like that if he had won the first time around, I thought you were a fireman.

Mr. G: Like a lot of us at NYPD, after my pension was vested, I joined the fire department. My wife still likes to see me in a uniform but she was never musical herself and my son is more like her. Later in life, I debated joining with the ceremonial pipes after picking up the drums, but they mostly play at funerals and that is just too depressing, and would take the joy out of it for me. They can play at my funeral, but I don't want to hear it, and avoid them as much as possible. [AFF], [BEH], [DET], [ENV], [AUD].

Dr. R: So tell me about the drum kit. What positive or negative experiences did you have with that?

Mr. G: I set it up in the basement and quickly realized it was driving my wife nuts. At first it was a vicious circle. Playing vigorously helped me manage stress. [AFF], [BEH], [BENE], [ENV], [AUD].

My wife would rather I went out for a run instead. When I would play, she would get irritable, yell a few choice words down the stair, I would get annoyed thinking how unfair it was that I couldn't play drums in my own house, I felt sorry for myself given all I did for the family. Sometimes I was livid about it and played even louder; it never helped the situation, or my music.

[AFF], [BEH], [COG], [DET], [ENV], [AUD].

Eventually, I got smart and hired contractors to build a sound studio in my basement. It had layers of sound insulation and still wasn't enough so I had to double up the layers of insulation. I was so happy with the outcome and from then on drumming became my solitary respite from stress in life. I don't mean my only respite. I mean the respite from stress that I am totally alone for. [AFF], [BENE], [ENV], [AUD].

My wife was so appreciative that I went to all that trouble to fix the situation for her that our love life even improved. No uniform required. I really loved the drums, I would look forward to playing them, and always felt great afterwards, too. Generally, I have felt more comfortable ever since. [AFF], [BENE], [CON BS], [CON EM], [CON GD], [ENV], [AUD].

Dr. R: We have a drumming group here at the facility. Do you think you would like to join?

Mr. G: Thank you for offering, but I haven't played with others since being a member of the marching bands. I usually don't get anxious, but I wouldn't feel comfortable. I am set in my ways just playing the drums by myself in the basement. I guess it is like people who sing in the shower, but avoid singing in public. [AFF], [BEH], [DET], [ENV], [AUD].

My wife should be coming with the car to take me out of here soon. She has an appointment with physical therapy next week. They are going to test her to see if she can help me in and out of the car properly. If she needs some training I understand they will provide it. I already had the contractors come in and install chair lifts to the second floor, and maybe more importantly, to the basement. I also had ramps for the front and back doors, some railings and a walk-in tub with whirlpool gets and an overhead shower and handheld combo. I can't wait to get home to her and I look forward to the independence the new set-up will provide. I haven't been able to play the drums in a long time and I am so excited in anticipation. It won't be long now. [AFF], [BENE], [CON EM].

Dr. R: It seems your contractors have solved a lot of problems in your life. If more people approached problems with your practicality, it might put clinical psychologists out of business. Actually, there is a field of psychology called engineering psychology that focuses on changing the environment to meet the person's needs, rather than changing the person to adjust to the situation. In fact, the Florida Institute of Technology, where I studied psychology had one of the first programs. Most of the graduates got jobs with NASA, engineering space capsules to meet the requirements of astronauts, but others solve problems as you have.

Mr. G: I think Stevens Institute in Hoboken had an engineering psychology department but it was more for developing tests to predict the best careers for people.

Dr. R: That's right, they offered 3 or 4 days of testing followed by a day or two of career counseling.

Mr. G: They had some of those tests at my high school. They said my interests were in line with the military but Vietnam wasn't for me. I guess they knew I liked a uniform! This was fun, did you get enough information for your study about music?

Dr. R: Yes you have been very helpful, thank you.

Mr. G: Have a good day and if I don't see you before I am out of here, thanks for everything.

Eighth Coded Interview, Mr. H

Mr. H: Hi Dr. R, what's the plan today?

Dr. R: Well, as we discussed, I thought we would talk about your life making music. Let's start with when you first learned to make music, can you tell me about that?

Mr. H: My father's friend, Capt. B, gave me my first drum kit for my nine-year-old birthday We lived in Southampton close to the beach and my parents were very social, always throwing big parties. This time it was for my ninth birthday with activities for me and my friends while the adults did what they do. There were crowds inside the house, and outside around the pool. My parents always had parties catered with a bartender making drinks. The less formal parties were almost a daily happening on my Aunt A's porch overlooking the beach a couple of blocks away. She wasn't really my aunt, but she wanted me to call her that, I guess because she was an only child, divorced with no children. Capt. B and my dad were always joking around, pulling pranks on each other, and he bought me the drum kit, just to drive my father crazy. It wasn't because he thought I would love it, but I did. I really liked Capt. B, he lived in Sag Harbor and owned a schooner that he sailed around the world on. **[ENV], [AUD], [AFF], [CON EM].**

Dr. R: Can you tell me more about drumming?

Mr. H: It was a professional drum kit adjusted to my size. It was the most gorgeous set of drums I had ever seen and went ape shit with it all day; well, I let my friends take turns, too.

Dr. R: How did you feel about playing?

Mr. H: I knew my father wasn't happy with me, but it was the most fun I had ever had. The whole neighborhood could hear even over the sound of the party. **[COG], [DET], [AFF], [BENE], [ENV], [AUD].**

Dr. R: Was there ever a time back then when you had negative experiences about making music?

Mr. H: Other than not wanting to stop when my parents would tell me to do homework or go to bed or to just give it a break, no. **[AFF], [DET], [ENV], [AUD].**

I always loved the drums right up until I started taking lessons. At a young age, I studied under Mr. W. **[AFF], [BENE], [DET], [ENV], [AUD].**

Dr. R: Can you tell me more?

Mr. H: I still loved the drums. My mother would drive me to Mr. W's house once a week. He was very demanding and that's when my anxieties started. I liked him, he was nice, but he made it clear that if I failed to rise to the occasion, he would drop me as a student. **[AFF], [DET], [ENV], [AUD].**

Dr. R: So, can you tell me about how you experienced that anxiety and under what circumstances?

Mr. H: He always gave me a new assignment each week and as soon as he told me what it would be I the worries started. By the time I got home I had lost my appetite and would ask if I could be excused from the dinner table to start my practice in the basement. My mother wasn't pleased with me not eating but by then my dad was ok with me practicing, not because he thought I was good and enjoyed the music but because he had

soundproofing added to a room in the basement. The stress continued all week, but it was tolerable, and as I learned the assignment, I felt good. [PHY], [BEH], [CON EM], [DET], [AUD], [ENV], [AFF], [CON BS], BENE].

Once I started to perform my assignment at the next lesson, I felt pleased with myself. I never let him down and I understood he was proud of my accomplishments. [BENE], [COG], [AFF], [CON BS].

Actually, that sense of accomplishment and the joy of playing really did linger throughout the week between lessons, but the fear of failure would press down on me, too. Is it possible to have a general sense of wellbeing and be stressed out at the same time. Maybe both experiences would wax and wane, sometimes one dominating when practice was going well, and other times the worries setting in until I snapped myself out of it. [BENE], [DET], [COG], [AFF], [CON BS], [CON EM].

Dr. R: So, would you experience a general enduring feeling and then spikes of other feelings?

Mr. H: It was a mixed bag of thoughts and fear of failure, the joy of drumming the determination and practice, practice, practice it continues to today, but to a much lesser extent. [BENE], [DET], [AFF], [COG], [BEH], [CON BS], [CON EM], [CON GD]. I often couldn't sleep absorbed thinking about a drumming career, as a musician. Mr. W had a great run in his career, and I wanted to be like him. My father would always chastise me saying the world doesn't revolve around drums, but for me it did. [PHY] [COG].

Dr. R: Can you tell me more including a few examples?

Mr. H: My stress during the week could become a full panic if I wasn't making enough progress with my assignment. In the car with my mother on the way to Mr. W's I would have to ask her to turn on the heater because my hands and feet were cold. The heater never helped much, but once I started drumming, I felt relief, able to put unwanted thoughts and stress aside, a great pleasure, mindfulness, it was transcendental. [AFF], [CON EM], [CON BS], [PHY], [DET], [BENE], [SPI].

Dr. R: What other venues did you play the drums in?

Mr. H: The high school marching band was fun, followed by music school, and then professional gigs. [ENV], [AUD].

Dr. R: What was the marching band like?

Mr. H: It was so easy compared to Mr. W's lessons. The drumming requirements were basic, the marching in formation was new to me but no problem. Both the practices and performances were a pleasure. I felt happy and I never really got nervous. I was chill. We played at events and concerts. [BENE], [AFF], [ENV], [AUD].

The only difficult times in high school had to do with relationships with peers or girls. Although I might be thinking about those issues during a performance, it was totally separate from the drumming, and unrelated. The marching band was so easy I could march and drum perfectly while totally engrossed in some issue with friends or a girl. [ENV], [AUD].

In the summer between sophomore and junior year I started played in a few hard rock bands. I really enjoyed making money playing at parties. [ENV], [AUD].

I wouldn't call it professional, though some would since we were earning money. I felt great. I was better a jazz but that wasn't the music people wanted to hear. [ENV], [AUD], [BENE], [AFF].

Dr. R: What positive or negative reactions would you have about playing at parties, such as emotional, behavioral, cognitive, or physiological responses?

Mr. H: The drumming was always good, I felt great, people were impressed, and I was happy, but like band events, the only issues I had in those years had to do with friends and girls, completely separate from the music, except to the extent that music helped me cope with personal issues. [BENE], [COG], [AFF], [CON BS], [ENV], [AUD].

Dr. R: What was it like at music school?

Mr. H: I was nervous the entire time and it would really go through the roof just before performances. [AFF], [DET], [CON GD], [CON EM], [CON BS].

Dr. R: What was it like studying music as an academic subject, was that different than practicing or playing music?

Mr. H: I discovered I was great at music theory even though I did not like it. I studied hard, which didn't bother me, but it was boring, and I had all A's. I might get tense while analyzing a difficult piece but never really stressed. I mean I didn't lose sleep over it, start sweating or get peripheral vascular constriction. I always came up with a sound analysis. [AFF], [PHY], [CON BS].

Composition was another story. All my insecurities came back. I felt weak, lost my appetite, and would get an upset stomach, especially when preparing for a timed examination. I would not do as well. When stressed I like to take it slow and go through everything meticulously. It helps me manage the anxiety and feel more in control, but that doesn't work in a timed exam so I did not always do well. [AFF], [PHY], [COG], [BEH], [DET], [CON EM], [CON BS], [AUD], [ENV].

Aside from drumming, I also excelled in conducting, which was fun especially jazzy orchestrations, I tend to just enjoy both activities, but conducting still doesn't compare with drumming and the orchestration required was more consistent with music theory class [AFF], [BENE], [CON GD], [CON EM], [CON BS], [ENV], [AUD].

Actually, let me correct that I would get nervous during the weeks practicing with the orchestra when we were first starting with a piece that was new to me that I had not had a lot of time to prepare in advance. The orchestra musicians were all very competent and if I made a mistake conducting them, they would notice. There wasn't any chance they would think Oh that is just the way the conductor wants it played. There was no benefit of the doubt. You screw up, and everyone knows. [AFF], [PHY], [DET], [CON EM], [CON BS], [ENV], [AUD].

Early on in the practice of a new piece, I got good at interrupting the conducting and saying, sorry, let's try that from the top. [BEH], [CON BS], [ENV], [AUD].

Lucky for me I never got to that point in a performance, they seemed to go well after all the practice, and I always felt great. I don't even recall any issues with friends or girls in the audience distracting me. I guess they were all teenage problems. [AFF], [BENE], [CON BS], [ENV], [AUD].

Dr. R: What about after graduation?

Mr. H: I was the drummer in some really famous bands including ..., ..., ... and. I made a lot of money quickly, but I would spend it just as fast. It was mostly hard rock, but I also did small gigs in jazz clubs and restaurants. It was great. [ENV], [AUD].

Dr. R: Tell me about that?

Mr. H: I wasn't that nervous compared to music school. The only immediate evaluation we ever received was from the groupies and the roaring of the crowd and they were always positive even if we played badly, which was a nice change. [BENE].

And, of course, the drugs and alcohol tended to numb me in the beginning. We started using in the hours leading up to a performance and then again afterwards, sometimes even during, so I couldn't accurately report how music making made me feel over and above the substances when we played. It was all drugs, sex and rock & roll even when we weren't performing. [BEH], [PHY], [CON EM].

Dr. R: You said in the beginning substances tended to numb you, was it different later?

Mr. H: Later in my career drugs and alcohol really took a hold of me. I was irritable all the time, argumentative with everyone including the band members and crew. [AFF], [BEH], [PHY], [CON EM].

Dr. R: Do you think it was a function of the substance use, or job stress?

Mr. H: I must admit, at the start of my career there were residual anxieties left over from music school, maybe even dating back to my days studying under the tutelage of Mr. W, I'm no psychologist. [DET], [AFF], [CON GD].

The alcohol and drugs did actually calm that down, but I became dependent on them pretty fast, and if nothing was available to use, or if I was trying to cut back, you just didn't want to be around me. I would snap at anyone for just about anything. That was not because of the music, I can promise you that.

Dr. R: How did that change, you're not like that now?

Mr. H: I went in and out of detox several times between my second and third marriage. AA and NA meetings helped. I was in a better place when I met my third wife. As you know, she died a few years ago. I haven't played professionally in a very long time. I rarely if ever acknowledge I was a professional musician, not even in the drumming group. I did tell Mr. Y but his Alzheimer's advanced and he doesn't remember me. I also told Ms. W, but she passed away last month.

Dr. R: Can you tell me about your experience with music here at the facility?

Mr. H: I do have the drumming circle, I get excited about it the day before and look forward with a small but clear sense of joy [AFF], [ENV], [AUD], [CON EM].

I also order Chinese Food and set up a makeshift drum kit with the different size containers filled to different levels, my tray and whatever else is around, and of course I use the chopsticks as my drumsticks. It's great fun. I can even tune up the sound based on how much I eat in each container. Then I put music on and jam along. Sometimes I get comments from other residents. The outspoken comments are usually negative, but some people get a kick out of it. Other times I switch to classical music, and I use one of the chopsticks as a baton and pretend I am conducting. When I use headphones no one complains. [AFF], [ENV], [AUD].

Dr. R: Is there anything else you want to share today.

Mr. H: No, I'm good, thanks.

Ninth Coded Interview, Mr. I

Dr. R: Can you tell me about when you learned to make music?

Mr. I: As a child, my parents gave me a toy xylophone for Rosh Hashanah to ring in the new year. I felt like the center of the holiday, family and friends gathered around as I played along to the music playing on the record player.

Dr. R: People can have specific positive or negative reactions prior to or while performing music; can you give me examples of reactions you had? For example, they may include increases or decreases emotionality, changes in behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences.

Mr. I: I was a child but I still knew enough about the Jewish faith to know ringing in the new year was a form of praise to God and I to the responsibility seriously, and if I wasn't going to realize it on my own, my father certainly took the time to remind me of it before handing me the mallets. I felt blessed and I accepted the role with great cheer. It was a thrill to play along. [AFF], [COG], [SPI], [BENE], [CON BS], [AUD], [ENV].

Not long after that I started going to the music store about three blocks away. Brooklyn was really safe in those days, at least in our neighborhood. The parents had a neighborhood watch even though that term had not been invented yet. You had to be old enough to travel outside our community before you could even think about getting into mischief. The shopkeeper at the music store knew everything about all different types of instruments, at least the one's he sold. I used to do odd jobs for people and started saving up my money to buy various books on how to play the xylophone. I would spend hours thumbing through the books before deciding on which one to buy. He had a professional xylophone and he used to let me play it after school and on weekends and holidays. I daydreamed about playing during school and would run to the shop with excitement when school let out. Playing was one of my joys in life. [AFF], [BENE], [CON EM], [CON BS], [AUD], [ENV].

He gave me the job of sweeping up and dusting to earn some cash, most of which went right back to him in various purchases. He also sold 45 records and albums with a great Askenazi klezmer section just perfect for the xylophone. I had a small portable record player in my bedroom at home and spent hours listening and playing along with my toy xylophone. The pleasure I had throughout my life as a young Jewish boy all centered around playing klezmer music on the xylophone. [AFF], [BENE], [CON GD], [CON EM], [CON BS].

A few years went by without anyone buying the professional xylophone so I asked if I could put a deposit down and pay over time. We agreed on a price and time line. It took a couple of more months to get the deposit saved up. I felt so good when he finally put the sold sticker on it. In reality nothing changed, I still played it at his store as much as I wanted whenever no customers were in the store. Not that I didn't want an audience, he just didn't want me playing when he was dealing with his customers. When I finally paid off the balance, he delivered it our apartment. My parents had been very supportive of my industrious approach to buying it but I sensed they preferred the toy xylophone, which wasn't as loud. I had to turn the volume up on my record player so the professional

xylophone blended with it. Knowing they weren't also ecstatic about it caused some annoyance, but they rarely complained. [AFF], [DET], [AUD], [ENV].

Dr. R: Have you played in any other venues besides at home?

Mr. I: When I was old enough to go out to clubs with friends, my musical tastes expanded, and as people got to know me they asked me to come to practices. I still had a klezmer sound but we started blending it with their styles, what an exciting time in music. I sought out and played with punk, rock-and-roll, afrobeat, and jazz bands, not to mention some traditional Jewish band doing weddings bar mitzvas and other ceremonies. I thought Frank Zappa was the best and I started expanding my percussion skills with hand cranks, sirens, Maracas, triangles and gongs. I felt accomplished, with pride in my abilities, when I felt on top of my game, I played better. I still worked in shops but more as a salesman the anything else. [AFF], [BEH], [COG], [BENE], [AUD], [ENV].

Dr. R: Did you have any negative reactions?

Mr. I: Overall playing music is great. Of course, sometime at various clubs we would get hecklers, drunks and some racists that really changed the mood but we usually had some very intimidating bouncers who could handle it and things would get back to normal fast though my tension lingered longer, and the anxiety probably impacted my performance. I would be distracted with racing thoughts about the disturbance, it was a downer, I would be physically shaken. At the break, I would have a drink at the bar, or talk with friends. That would usually work, and I would be relaxed yet excited and happy to play some more in short measure, but once I just left and didn't finish my set. [AFF], [BEH], [COG], [PHY], [DET], [BENE], [CON BS], [AUD], [ENV].

Dr. R: We have some music groups here at the facility if you are interested. I am sure they would welcome you.

Mr. I: I thought those were for the long-term residents instead of the short-term rehab patients. I don't plan on failing physical and occupational therapy and staying here the rest of my life.

Dr. R: It's true that the short-term rehab patients are often busy at the gym, which takes precedence over music activities but some are scheduled for the weekends or evening hours after PT shuts down if you're interested.

Mr. I: Thanks but I'm a lot younger than most of the people here and when I'm not in PT I usually have visitors stopping in. I'll just wait until I get out of here to play my instruments. For now, I have music on my phone and Bluetooth earbuds I enjoy when I have spare time. [AFF], [ENV].

Dr. R: Okay then, the day I come in and see they sent you home I will be happy for you.

Mr. I: Thanks, again. I trust it will be home before the end of the month. They say I'm doing well in PT.

Dr. R: If you want a better idea of the date, ask PT "What else, if anything, I need to prove to you I can do before you recommend my discharge?" and when you can do everything, remind them, "You said, 'If I can do this, that and the other thing I could go home, and now I can'" Then ask them, to please give the social worker the paperwork straight away. Becoming your own best advocate usually speeds thing up.

Mr. I: That is really helpful, thanks.

Dr. R: No problem, anytime.

Tenth Coded Interview, Ms. J

Dr. R: Can you tell me about when you learned to make music?

Ms. J In 6th grade I asked my parents if I could get a guitar and take guitar lessons like a couple of my girlfriends were planning. We all had the same teacher though we never had lessons together, yet we progressed through the song book at the same speed so we could practice together at each other's house. Our parents would drive us to the music shop and our teacher had a back room where we had our lessons. It was an idyllic time in life. We were really close. If one or the other of us had anxiety about a particular assignment making it harder to knock-out, we met during the week and helped each other, demonstrating the fingerings, building each other's self-confidence and generally having a good time. It prepared us for our lessons and carried us through the week. Although our teacher could be demanding at times, that stress was always overcome by our sisterhood. [AFF], [BEH], [COG], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

It was great while it lasted, for seventh and eighth grades we went to different schools. I was still in the same town but stopped taking lessons and stored my guitar in attic. I guess the friendship had sustained me more than the music, because I was fairly quick to give it up and replace it with my newly developed interest in boys. Music just wasn't as rewarding those years. [AFF], [DET].

But then by high school we were back together and we floated the idea of developing a band. They had not continued with lessons but still played their guitars some. I went up to the attic only to discover the neck had warped and the strings were lifted off the neck. The seam had also separated. It was a cheap acoustic guitar and not worth the cost of repairs.

we played at private parties & local pubs. [Guitar]

Dr. R: So what did you do?

Ms. J I got myself some babysitting jobs, saved up and bought myself an electric guitar with a little portable speaker. A lot of girls had babysitting jobs so they had a place for their boyfriends to come over after the kids went to sleep. I always looks forward to playing my guitar. I couldn't plug into the amplifier, but I could practice my fingerings. The sisterhood was back and I felt good again, it was so much fun to practice and I really looked forward to when we would jam together. We called ourselves The Three M's as a play on X, two electric guitars and one electric bass. We had books called fakes. They included the fingerings for all the popular songs, mostly just chord progressions. [AFF], [BEH], [BENE], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Did you have gigs and was it a different feeling practicing for fun with the group versus rehearsing for a gig?

Ms. J Sure, the rehearsals with the band weren't much different than our regular practices. We always had fun. [AFF], [BENE], [CON BS], [AUD], [ENV].

Dr. R: Did you also practice at home on your own? If so, was that different from practices with your friends?

Ms. J Yes, I used to practice on my own before a gig and it was different. For the days leading up to a gig, I noticed a general uneasiness, I felt tense, and a little worried about

how I would do, and usually didn't do as well as a result. I actually had a little stage fright just before going on, palpitations, vasoconstriction, muscle tension and sweaty palms. It usually subsided once we were playing and I didn't have it before going back on after a break. I guess I was used to the audience by then. [AFF], [COG], [DET], [BENE], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Did things change as you got older? People can have specific reactions prior to, and/or while performing music, including increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences. Did you have any of those reactions and how might they have changed over time?

Ms. J By senior year we started to get some groupies who showed up at all our gigs, I knew them and felt more comfortable with them there in support. By the summer after high school we were all 18 and started playing at local bars. I had not anticipated the success we were having. I felt a little like an imposture because I did not feel like a real musician. [AFF], [COG], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Did the group stay together after high school?

Ms. J Yes, we went to community college together on a part-time basis and continued to play at some local venues. The groupies remained loyal and became friends. We actually took a couple of music courses and composed our own song. After that step in our development, I didn't feel like an imposture anymore. I was proud of what we accomplished and have remained generally happy. We are still in touch though the band dissolved when the others married. [BEH], [COG], [BENE], [AFF], [CON GD], [AUD], [ENV].

Dr. R: What was the next stage in your life with music?

Ms. J I put away my guitar for a while after the band ended. Then I started playing again. Just by myself at home. Marriage was never my thing. I had a few long-term relationships over the years but didn't want marriage or kids. I have always had a dog. My last dog was a hound named S-----r. He died at age 13 a year before I came in here. I knew I wouldn't be able to care for another dog after him.

Dr. R: What kind of reactions did you have playing music by yourself?

Ms. J I was all good, I was content. I enjoyed it. Some of my boyfriends liked it and encouraged me, but others didn't, so I would avoid playing when anyone disapproving was around. Those relationships were doomed to failure. My dogs all loved it except one so I went through a phase when I stopped playing again, but that was short because he was an old dog I had rescued and he didn't live much longer. I think I had him a year and a half. Then I was back to playing at home again. [BEH], [AFF], [BENE], [DET], [AUD], [ENV].

Dr. R: What about here at the facility, do you participate in any musical activities?

Ms. J I have gone to a drumming circle and a singing group, I didn't care for the drumming but I sang in the band in addition to playing the electric guitar so that was fun. [AFF], [DET], [BENE], [AUD], [ENV].

I don't have my guitar here. They have been trying to get me well enough to go home to my assisted living apartment, but now there is talk about the possibility of long-term care.

If I move to long term care, I'll have someone get my guitar out of my apartment. It will make me feel at home wherever I am. I must admit I am discouraged about long term care, but I understand if I keep doing my exercises, sometimes people in long term care eventually get better and can leave. [AFF], [BENE], [AUD], [ENV].

(a nurse entered the room for vitals, medications and other treatments).

Dr. R: We will leave it at that for now. Don't give up hope and thank you for your participation.

Ms. J See you around doc.

Eleventh Coded Interview, Mr. K

Dr. R: Can you tell me about when you learned to make music?

Mr. K: My family wasn't very musical. I started taking lessons on the electric bass guitar in HS. It was a rental in that I couldn't promise my parents I would persist at it. Indeed, there were a lot of occasions when I thought I was ready to hang it up. I thought of it as just a lot of work in the beginning. More often than not, I didn't like it, whether it was practicing alone at home, preparing for my lesson or playing for my teacher, it just seemed too hard. [AFF], [COG], [DET], [CON EM], [CON BS], [AUD], [ENV]. Once the lesson was over, I always felt a relief, less anxiety, not that I had accomplished a lot, I didn't, but because I knew I could go home and put my bass down and ignore it for a few days until I had to start struggling again in preparation for my next lesson. My distaste and irritability would start the night before, I thought of it as an extreme imposition. I disliked thinking about having to practice, and the dislike for learning to play would build as I practiced, right up until the next lesson was over. Then the cycle would repeat. [AFF], [COG], [DET], [CON EM], [CON BS], [AUD], [ENV].

Dr. R: Did that ever change for you?

Mr. K: I guess after that painful cycle repeated itself over and over, week after week, eventually some music skills stuck with me because it gradually became easier and the moments of actual fun started to build, both between and during lessons. [AFF], [BENE], [CON EM], [CON BS], [AUD], [ENV].

Dr. R: Did you notice any difference in your reactions when you practiced alone at home versus during the lesson?

Mr. K: Not really, I started to enjoy both activities, and my self-assurance developed, both in the way I thought about myself and the way I carried myself. Of course, I could screw up a piece and that never felt good, and it didn't do much for my confidence, but I mostly felt good, and that seems to have carried me through life. [AFF], [COG], [BEH], [BENE], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Did you play with friends at all?

Mr. K: No, my friends liked popular music and I liked jazz. They just didn't appreciate jazz, so I avoided anything to do with jazz when I was around them. [BEH], [DET], [AUD], [ENV].

Dr. R: So what happened with music after high school?

Mr. K: Once I got to college I made some cash on the side in various jazz bands, and started to take some music electives. I also bought an upright acoustic bass. It was a wonderful time, both practicing and playing. I met people who loved jazz just like me, and that made a big difference in my life. I have frequented jazz clubs all my life as a result, whether I play in them or not. I met my wife in music class and she loved jazz almost as much as I do, though our children were more like my high school friends, hooked on popular music and never did the work needed to learn to play an instrument. [AFF], [BEH], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: How did your music classes impact you?

Mr. K: I took music appreciation, music theory, jazz history and two semester courses in the acoustic bass, which was really one-on-one music instruction each week. I met my wife in music appreciation. I appreciated more than the music! Music theory was a struggle and reminded me of the days when I rented an electric bass for lessons. The feeling was similar. but as an adult I was free to cut classes sometimes. I considered dropping the class, but did well. In the end it helped me and improved my playing. My wife and I were dating by the time we decided to take jazz history together. That was so much fun and opened up my eyes to many jazz musicians I had never heard prior to that. I have continued to enjoy jazz my entire life. [AFF], [BEH], [COG], [BENE], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Were there other kinds of settings that you made music in, and what type of audience, if any did you have?

Mr. K: One of my favorite spots is on the back porch overlooking the garden, it's my designated spot to smoke cigars, too. As long as I have a cigar burning, I am invariably left alone, and if I'm smoking a cigar, I'm usually drinking scotch, so I don't know if you would notice an improvement in my playing, but I would think so, at least I would be feeling better about it.

Dr. R: Now that you are an older musician, have you experienced any increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences with your music.

Mr. K: Jazz remains a favorite of mine and I can still listen to it on my iPad or phone while in here. I planning on playing the bass as soon as I get better and get discharged home. My wife and I are looking forward to it, but I have to admit my arthritis in my hands and fingers make it a challenge. Hopefully, I'll be home in a few days. One thing I have learned from physical therapy is that it is a lot easier when they give me my pain meds about a half hour before exercise. Maybe I will start doing that a half hour before playing the bass. Taking drugs before jamming would certainly be consistent with the history of other jazz musicians! [AFF], [BEH], [PHY], [BENE], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Well I suspect when I come in next week I will see you were discharged and I will be happy for you. If I see you are still here, I'll stop in to talk to you because you will probably be fit to be tied.

Mr. K: Thanks Dr. Reiss.

Dr. R: Take care Mr. K.

Twelfth Coded Interview, Mr. L

Dr. R: Can you tell me about when you learned to make music thinking back and trying to describe how your skills develop?

Mr. L: Sure, no problem. I started with a miniature 3/4 violin in grade school, they had a great music program with a variety of instruments to choose from, and they started us at a young age. A lot of parents picked the school because of its music program, as did my dads.

I never knew my mother and my biological dad lived with my other dad as long as I can remember. They were both artists. I always preferred music to painting and drawing. Our music group had so much fun, I always looked forward to it, even if we made errors, our music teacher was so encouraging. It was like getting participation trophies before they were ever a thing. [AFF], [BENE], [CON BS], [CON EM], [AUD], [ENV].

I moved on to a regular violin in junior high, and then switched to the cello in high school. By college I was playing the Contrabass. I guess I always wanted something bigger, better and greater depth in sound. A violin tends to be too high pitched for my liking, at least when played alone. With an orchestra the violins can blend nicely. . [AFF], [AUD], [ENV].

Dr. R: People can have differing reactions prior to, and while performing music, which may continue afterwards; can you give me examples of reactions you had at various times in your life? It might include increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or spiritual experiences.

Mr. L: Sure, grade school included different degrees of positive reactions whether it was in anticipation of a class or performance, whenever I played, and you're right, the good feelings would persist afterwards. I was more alert. They ranged from good moods, to anticipatory excitement, to pure joy. Sometimes I felt especially good, and was more focused than others, and the music was better as a result, but always having fun, even if to a lesser degree other times. I don't think I ever missed a music class, I even loved to practice. [AFF], [BEH], [COG], [BENE], [CON BS], [CON EM], [CON GD].

Dr. R: Can you tell me what effect different audiences, or environments had on your various reactions?

Mr. L: Back then all the audiences and situations seemed to have a similar effect. They were all good. Some may have had a greater positive effect on me than others, for example if I was with good friends but it was still all good regardless of the situations, but that wasn't true my whole life.

Dr. R: Did that continue in high school or change significantly?

Mr. L: No, the bliss of childhood seemed to change during adolescence. I was still in the same school for junior high and high school, with mostly the same classmates, but the high school division was different in other ways. There was a lot of pressure to excel, with a focus on getting into a great university. People started participating in different activities, not because they were fun, but because they thought it would look good on a college application. High school was much more competitive. The teachers were different

from grade school. They led the push for excellence, even the music teacher, as if their jobs depended upon the students getting into the best schools. I started getting nervous whenever a performance was coming up. I can still recall the first time I had stage fright as a freshman. It was a complete panic right up until the music started, and it impaired my performance to a certain degree. Even if I had the piece down cold in practice, it did not seem to prevent the stage fright, though it would subside faster once I started playing. [AFF], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: So did different audiences or performance situations start to impact you differently?

Mr. L: Yes, if I was playing with friends outside of the school pressure cooker, it was still all good with respect to joy, confidence and even how my body felt, but as I mentioned, the competitive nature of school really changed things. It wasn't all good around performances anymore. [AFF], [COG], [PHY], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Different people can experience stage fright differently, so what kind of symptoms did you have?

Mr. L: The usual fears of screwing up and embarrassing myself, a pounding heartrate, perspiration, hyperventilation, feeling shaky, headache, and I would keep to myself avoiding conversations with other people. It continued even after getting into Princeton. [AFF], [PHY], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Was that before, during or after performance?

Mr. L: It could all start to a lesser degree in the days leading up to a performance, increase during and linger afterwards, except for avoiding people, that only happened just before a performance. It probably was a bad move because by avoiding the distractions of talking to people, I just focused more on my internal fears and anxieties. [AFF], [COG], [PHY], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: You said it continued while at Princeton. Was it exactly the same or different?

Mr. L: The same, at first. During my first year I saw a counselor who taught me various relaxation techniques, and pushed me to develop an exercise routine to improve my cardiovascular system. He would have me time how long it took me to calm my body down while playing the Contrabass directly after a vigorous workout. At the end of a workout, I would sprint to my dorm and up the stairs to my room and immediately start playing, while using relaxation methods to calm myself. When I got good at it, the stage fright stopped happening, or at least it was minimal, and a lot of the joy from childhood started to return, and my music improved. When playing music, I think that joyfulness for life, for people, and I dare say, the universe when feeling transcendental, was instilled by my parents, and grade school. It's part of my personality, and was only pushed down for a little while as I matured through adolescence, becoming a man. I actually met my wife at Princeton, we were in the same eating club our last year. In 1971 the Tower Club was the first to accept women, and Mrs. L was one of the first to get through bicker, the screening process. It was more than a place to eat. It was a social club and a place to study. [AFF], [PHY], [DET], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: How was your life with music after Princeton?

Mr. L: Mrs. L was from Long Island so we moved out here to raise a family. She also loved music and played the piano, so we played together in all sorts of situations, at home, with friends, even at a local pub. It was like childhood all over again, especially after we started having children and teaching them to play instruments, an unconditional love for making music, always joyous, and sometimes more than others. I'm not certain what impacted the slight differences, maybe just outside events with little or no connection to music setting the mood. [AFF], [BENE], [AUD], [ENV].

Dr. R: Did your joyful approach to music and life ever change again, even for a little while?

Mr. L: Mrs. L died from cancer in her early 60s. I immediately went downhill, and got really depressed. Little in life was joyful in those days, not even music. I fought my way back and even started going out and playing with friends again. I had a motorcycle with a sidecar that I could put my Contrabass in. It was a scene and everyone knew who I was as a result. Things were picking up until a drunk driver tried to pass me and veered into me. After the hospital, I landed in here. I felt sorry for myself for a little while but my oldest son brought in my miniature violin. I never got rid of it and he had new strings put on it, tuned it down, and brought in a rubber mute. I prop it up on my lap and play it like a bass. It's still a little high pitched for my liking but it never fails to bring me joy, and no complaints from peanut gallery around here. [AFF], [BENE], [AUD], [ENV].

Thirteenth Coded Interview, Mrs. M.

Dr. R: Can you tell me about when you learned to make music?

Mrs. M: I played with a toy harp as a child but eventually moved onto an Irish harp. I never studied music other than what I learned from my mother as a child, and friends later in life. We would meet at Irish bars for sessions. People played all sorts of different traditionally Irish instruments, the concertinas, fiddles, flutes, tin whistles, Uilleann pipes, Bodhran drums, Banjos, and Mandolins. I fit right in with the harp.

Dr. R: Let's stick with the toy harp for now and we will move on to discuss the Irish harp later?

Mrs. M: Okay, what do you want to know?

Dr. R: What was it like playing with the toy harp? Can you give me examples of reactions you had, if any, for example, increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences?

Mrs. M: I received it on Christmas when I still believed in Santa Claus. I was so excited and grateful when I came downstairs. It wasn't the first present I opened, but the others did not have much luck competing for my attention once I did open it. I had been hoping for one ever since I saw it on TV and my mother had taken me to see Santa at Macy's. I asked him to promise me he would bring me one and was worried because he wouldn't promise, he just said, "I'll try my best, but there are no promises." I'm not sure how old I was but I was an only child and did not have play dates with other children in the neighborhood. We lived in an apartment building full of adults. I really didn't have contact with other children who might have clued me into the big Santa Claus scam until kindergarten. As I implied, I started playing with the harp straight away. Music was so much fun and I did not care if I couldn't really play. In retrospect, I think I must have driven my mother nuts at first. My father did not seem phased by it. He was a rather non-reactive sort. Our dog used to run into the room and start howling whenever I played. I loved the company. I thought she was singing along, but she was probably trying to get me to stop. [AFF], [BENE], [AUD], [ENV].

My mother had studied music in college at Ireland. She migrated to the states after graduation and then met my father here. Once she realized I was hooked on the harp, she started to teach me how to play more properly. I don't think she ever played the harp before I latched onto it, but with her music background and her desire to encourage me, she learned it with me. All I wanted to do is turn the radio on and just play along as enthusiastically as I could. Sometimes I fantasized I was a little cupid flying around playing my harp. I even started having a recurring dream about that. It was literally a heavenly feeling, though I have never been a particularly religious person. In contrast, I have had some hellish nightmares in my life but they were never connected to music. I always had so much fun in my flying cupid dreams playing the harp and can't imagine anything negative about it [AFF], [SPI], [BENE], [AUD], [ENV].

Of course, when my mother would come in, turn off the radio, and show me the scales and certain progressions that she made me practice and memorize. I did not appreciate it,

at least not back then. I felt like she was taking the fun out of playing. [AFF], [DET], [AUD], [ENV].

I must admit, the more I practiced according to my mother's instructions, the better I became when free to improvise to the radio. I started to more fully appreciate the gifts my mother was bestowing on me. I always loved my parents but as I improved, I grew to love her more, especially for all she did. Without the gift of music I might have been a very lonely girl. [AFF], [BENE], [AUD], [ENV].

By the time when I was in elementary school, my parents bought me a miniature Irish harp, less than two feet high. It was perfect, similar to my lap harp on the chair over there, but with less strings and it didn't have levers.

Dr. R: Did you still play mainly at home, with the radio or your mother?

Mrs. M: Actually, up until when my parents bought me the new harp, my mother and I did not really play together in the true sense of playing together. We would take turns sharing the toy harp as she instructed me, but once we had two, we did start playing duets. I really enjoyed those days. Memorizing pieces in prep for our duets started to come easily to me. [AFF], [BENE], [AUD], [ENV].

I also made friends at school and we would arrange play dates and each other's homes. Some of my friend played instruments so we would sometimes jam, which was usually great fun. [AFF], [BENE], [AUD], [ENV].

A couple of friends didn't always play nicely in the sandbox so that wasn't great, but that's life. Indeed, it is the same at this age here at the facility. There are all types of people, they just have bigger shoes on. [AFF], [DET], [AUD], [ENV].

Dr. R: What was high school and college like? You said you never took any formal training? Did you continue to play throughout life?

Mrs. M: I did have a music appreciation course in high school, but never had formal lessons. I continued to play at home, alone, with my mother, or with friends. I studied political science in college and didn't play much, at least not until I was old enough to go to the bars. Once I found some Irish pubs that had regular music sessions I liked, I started practicing and joining in. If I didn't know a piece I would sit it out or go to the bar and order a drink. [BEH], [AUD], [ENV].

Dr. R: Can you give me examples of reactions you had leading up to, during or after a pub performance?

Mrs. M: It was really the first time I had some stress about music. It wasn't just the music. Going to a new pub, listening to strangers playing, getting to know them between sets, and getting invited to join in at some later date wasn't without some pressure. Some groups were more relaxed than others. I would write down the names of the songs on a napkin and then, if I did not know it, I would try and find a recording to practice playing along. Some were easier than others. It was new for me. I had to persist at practicing because I did not want to join in before I knew a piece. [AFF], [BEH], [DET], [AUD], [ENV].

If I was learning them well as the date approached my stress subsided, but if I was having trouble, it increased and made learning harder. Usually, I was excited and in a good mood just before the sessions and my performance reflected that. I guess that is because I would skip going if I did not have the pieces memorized yet, or if I did go and a couple of pieces

came up I did not know, I would just sit it out. [AFF], [BEH], [DET], [BENE], [AUD], [ENV].

Dr. R: And how would you feel during the sessions, or following them?

Mrs. M: They were always the best times of my adult life. I felt great. [AFF], [BENE], [AUD], [ENV].

Correction, almost all the time, since I wouldn't go if I wasn't up to it, but every now and then I would memorize a very different version of a piece they were playing and stand out like a black swan during a performance. My anxiety would shoot through the roof. [AFF], [BEH], [DET], [BENE], [AUD], [ENV].

Dr. R: How did you deal with it?

Mrs. M: Usually, I would just put my harp down, get up from the table and go to the bar for a Guinness, or excuse myself to the lady's room. Beer works as does powdering your nose.

Dr. R: Can you describe what ways you experienced anxiety shooting through the roof?

Mrs. M: Yes it is pretty unforgettable. I actually thought it was happening again in my 40s until my doctor told me those were hot flashes. It was basically the same but at the pub I always knew why it was happening and as a result the physical response was paired with a feeling of embarrassment and a desire to exit stage left. With hot flashes they would come on at any time, and for no reason, at least, I did not know the reason. Getting old sucks. [AFF], [PHY] [DET], [BEH], [AUD], [ENV].

Of course, if I hadn't memorized the wrong version of *Egan's Kerry Polka* I would have never met my husband having a drink at the bar when I ordered my Guinness. My anxiety quickly turned to excitement, and that carried us through 3 children and 5 grandchildren. He died from covid before we knew much about it.

Dr. R: What was your experiences like with music during your marriage and child rearing years?

Mrs. M: My husband didn't play an instrument but he loved listening to it. My son played the recorder at a young age. As I recall, they taught him it at school but he never played after elementary school. My daughter's both liked to play with my harp and eventually took lessons. The younger one quickly moved onto the guitar and rock-and-roll. My older daughter followed in my footsteps and would play with me. I didn't press them to practice the way my mother did. I left that to their instructors. Music was a relaxing positive aspect of our family life. Once in a while later in life, my husband and I would go out to a pub for dinner and listen to music but I became more like him, enjoying listening to music without a strong need to join in. I do join in here though, my daughter dug out my lap harp and delivered it to me when she heard about the music activities they had. [AFF], [CON GD], [AUD], [ENV].

Dr. R: And how has that been?

Mrs. M: It is a lot like my childhood with playdates; some people are more fun to play with, others can be difficult. That seems to be the circle of life, having to depend on others to care for me just like a little child. Is there anything else you wanted to ask me. [AFF], [BENE], [DET], [CON BS], [AUD], [ENV].

Dr. R: No, I think we covered most things, thank you for everything?

Fourteenth Coded Interview, Ms. N

Dr. R: Can you tell me about when you learned to make music?

Ms. N: I am a professional cellist. I started to taking formal lessons in grammar school, continued through high school, and then went on to the Oberlin Conservatory of Music. It's a really small school dating back to 1865. Even with the more current expansions, they probably only have 500 students in the entire school. It was an exquisite musical education. I would recommend it to anyone pursuing a professional career in music.

Dr. R: Let's start with grammar school. People can have reactions prior to, or during musical performances; can you give me examples of your possible reactions back then, such as, increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences?

Ms. N: Actually, my mother was a music teacher and was always introducing me to music and teaching me things about music, even before I started school, but I didn't decide on cello until grammar school when I was ready for formal instruction. I only remember good times with my mother, I looked up to her, she had a very natural way of introducing someone to music. [AFF], [BENE], [AUD], [ENV].

Formal lessons were a very different animal. My first teacher was very strict. I remember she would hit my arm with the hard part of her bow whenever I failed to hold my bow properly, or maybe I should say, whenever I didn't hold my bow the way she instructed, which as a professional cellist I came to realize was wrong to begin with. I was a little frightened of her. I would get stressed out about every lesson, and had all the typical physiological symptoms of anxiety as a result, including performance difficulties. It seemed to last most of the school year and really spiral at the beginning of every lesson. I never explained it to my mother. I avoided that conversation. As a music teacher, I was afraid she would get involved and confront my teacher, plus strings were not my mother's forte. I only had that teacher for two years. [AFF], [BEH], [PHY], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Did things change with your next music teacher?

Ms. N: Yes it was amazing the positive impact she had on me. I didn't practice out of fear. Instead, I practiced because I enjoyed it, and in turn, my performances were always better. I reached out to other students who were learning an instrument and we would get together and play music together. We all made mistakes on a regular basis but no one seemed to mind. We would just try it again. The joy of learning even outweighed the end result. Performances were fun, also, but most of the efforts went into practice and just playing together. I felt good before during and after practices and performances. [AFF], [BEH], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Can you tell me more about performances?

Ms. N: By middle school I joined the band and we had two performances a year, one around Christmas, and the other near the end of the school year. They involved formal practice sessions each week. I made many friends through the band. It was wonderful. I liked it more than any other activity. But by the start of November and April respectively, I started to get a little bored with the music since we had been playing it for so long. I had little inspiration or enthusiasm for the music by then, it wasn't pleasurable, but as we got

closer to the actual performance, the excitement started to build and the boredom passed. Each performance was perfect. We all had a great time, and would go out together afterwards the way they do on closing night of a theatrical performance. [AFF], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: What was Oberlin like for you?

Ms. N: It was the best time of my life. My roommate in the freshman dorm played violin. We hit it off right away and had some of the same classes together. The teachers were all excellent. If I could figure out a way to become a professional student and get paid to do it, I would. I loved preparing for class, performing in class and spending time with my fellow classmates. [AFF], [BENE], [CON BS], [CON EM], [AUD], [ENV].

Looking back on my four years at Oberlin the only time I found school a little stressful was the result on one teacher assistant. I don't think he liked his position and he took it out on all of us. I can't think of anyone who liked the way he treated us. I sometimes cut. I don't know if anyone brought it to the teachers attention but they sidelined him by the middle of the academic year. He wasn't as bad as my first music teacher in grammar school but I did have hints of all the negative reactions I mentioned before that I had back then. However, I had more self-confidence by then and realizing all the other students felt the same way helped me cope with him enormously. [AFF], [BEH], [PHY], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: How did your professional career take off and did your reactions around music change.

Ms. N: I focused on auditions for various orchestras and continued to do so for a year and a half following graduation. I had some long runs, over a decade each, with some very important orchestras.

Dr. R: Let's focus on the auditions first. How did they go?

Ms. N: I thought it would be easier than it was. After the fourth rejection I started to tense up about how I could support myself. I worried, my perfectionism made me prepare even more. The auditions were becoming like a job. I was getting depressed during the preparations and nervous at the auditions themselves. [AFF], [BEH], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: And your first real position as a professional cellist, how did that go?

Ms. N: It was the A-orchestra. I don't know why but that call for the audition was last minute, and I went with little preparation, felt calm, was physically relaxed, didn't think much about it and was delightfully surprised with the offer. I was welcomed into the fold and excelled for the next decade. I was very professional, physically relaxed, without worries or anxieties. I liked everyone, the music and the work. [AFF], [BEH], [COG], [PHY], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

There were a couple of times that were stressful though. Every now and then we would have a guest maestro, and they were not all pleasant. My stress reactions would try and raise their ugly head but I was always able to keep my mouth shut [AFF], [BEH], [PHY], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: And what about the other orchestras played for?

Ms. N: Various options would open up from time to time. I played with the B-orchestra. and then the C-orchestra for over a decade each before retiring.

Dr. R: Over the years, have different audiences, or environments had significantly different impacts on your reactions?

Ms. N: The different music halls and audiences did impact me as a musician but most were in the same way. They motivate me. The music might resonate differently in different halls and our communication with the audience varies. It is sometimes more glorious than others. Sometimes the conductor brings more out of us than others, but it has mostly been positive. Aside from a few bumps in the road with guest maestros causing stress early on in my career and one that just seemed bored with the job, like it was an imposition, my career playing in orchestras has been at the top. I wouldn't trade it for anything. As you know, I never married and didn't have children, but retirement has been fun. I have a dedicated boyfriend who has stood by me who I love dearly. I don't really play the cello anymore. I reached my pinnacle years ago and have no interest in struggling with my instrument at this stage of life. I enjoy listening to CDs of my professional work with him if I want to reminisce. [AFF], [BEH], [COG], [PHY], [BENE], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

I have new things to explore in life once I can set up my discharge. We are trying to coordinate a day pass for the final check-up and having the feeding tube removed by my surgeon in the city. He is hard to pin down and then the social worker will process the discharge papers for me to sign. We hope to take a private jet out of the local airport down to Palm Beach on the same day as the discharge, for the rest of the season.

Dr. R: That sounds like a well thought out plan. I wish you all the best getting the pieces to fall into place in a timely manner. Thanks for all your help.

Ms. N: And thank you Dr. Reiss. Will you be going down this year?

Dr. R: Maybe late winter or early spring, we hope so.

Ms. N: That's nice.

Dr. R: Well, good luck and have a nice afternoon.

Fifteenth Coded Interview, Mrs. O

Dr. R: Can you tell me about when you learned to make music?

Mrs. O: I play the harp, classic harp. I have played harp since I was a teenager. My mother supported my decision from the start. She was always talking about how beautiful the harp looks, and how angelic the music sounds. Of course, those were my high school days, and I had a darker side, was devilish and was into things like Tarot cards. It was long before being Goth was popular, and before the Goth music subculture came out of Britain in the 80s. You could say my angelic side won the battle when I started playing the classical harp in college.

Dr. R: People can have specific reactions prior to, and/or while performing music; can you give me examples of reactions you had when you first started playing the harp, and was it different under different circumstances?

Mrs. O: In the beginning I just played at home. I really didn't know what I was doing. I was an only child and usually played in my room when my father wasn't home. He could make me feel anxious. Otherwise, I felt the same whether I was home alone or if my mother was in the house and I sounded better. It was fun. I didn't know anything about technique, or much about music other than what I liked, so I didn't have an objective criteria to measure myself against. I guess what I am saying is, if I wasn't playing well in the beginning, I didn't realize it. I thought I was great. I was just happy to have my new harp. I mean new to me, we bought it second hand. I could play for hours. [AFF], [COG], [BENE], [DET], [AUD], [ENV].

Actually, at times it was trance like, as if I traveled into another dimension. When I snapped out of it, I felt lightheaded, distracted, and a little shaky. I would just take a break, eat or drink something and usually return to it feeling better. [SPI], [COG], [PHY], [AFF], [BENE], [DET], [CON BS], [AUD], [ENV].

Dr. R: How was it different when your father was home?

Mrs. O: He liked peace and quiet so I just never played when he was home. [BEH], [AUD], [ENV].

Later in life when I was married and he visited us and the grandchildren he politely listened. That was great, I actually think he enjoyed it. [AFF], [BENE], [AUD], [ENV].

Dr. R: So what was playing music like for you in college?

Mrs. O: I was a history major but took harp lessons for elective credit each semester, plus a few music theory classes my instructor recommended. I developed a strong love for classical music, especially from the romantic period, and as a result I was good at it. By the time I graduated I had been introduced to atonal pieces, something I would have really liked in high school if I had been introduced to it then, but by the end of college, when I did encounter it, I wasn't very keen on it and don't know if I was good at it or not. I guess I started embracing my angelic side that my mother always associated with the harp. As an adult, I always played romantic era pieces for her, and from her perspective, I just didn't really know how to play during my high school years, which actually had a lot of truth to it. I came to objectively believe in my musical skills, which is very different than the subjective belief I had as a teenager. The harp was always a major part of my life, I enjoyed it the way my father enjoyed his peace and quiet, I just had a better

understanding and more mature appreciation after studying music academically at college. It carried me through my entire adulthood, marriage, motherhood, even grandparenting. [AFF], [COG], [SPI], [BENE], [DET], [CON GD], [AUD], [ENV].

Dr. R: Did you ever play with other people and if so how was that?

Mrs. O: Our town had an amateur theater group and orchestra that I joined for a few years.

Dr. R: Did you experience any increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences during practices or performances?

Mrs. O: Generally, I was in a good mood and excited prior to and during practices and performances, my heart beat would quicken, I had a bigger smile than usual, and always played well. [AFF], [BEH], [PHY], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

One season a couple of women joined the group and started grating on me. Although they tended to stay to themselves, when you could hear them, they were always complaining all the time. They were absolute pills. I just didn't like them and let them live rent free in my head for a while. My mood would change as soon as they walked in the room, and I did not play as well. The whole feeling and dynamic of the group changed as a result. I was a little angry and physically depressed, both of which showed to anyone observing, and it affected my performance so I dropped out at the beginning of one of the productions we were working on and didn't return until after they left the group. [AFF], [BEH], [COG], [PHY], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Did it go back to the fun times you had before they arrived once they were gone?

Mrs. O: Yes, the same in every way. [AFF], [BEH], [PHY], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: What other venues have you played in?

Mrs. O: Just at home with my husband, with family, or by myself. The grandchildren love it and I rise to the occasion. I can't wait until I get out of this place. I think I have grown to appreciate home life even more after all the weeks I have been stuck here. Please do not misunderstand. The staff has been great, especially the physical and occupational therapists, and my family visits regularly, but I miss my harp, I think about it all the time. [AFF], [COG], [BENE], [CON GD].

Dr. R: Well then, I'll be happy for you as soon as I see you are heading home; in the meantime have you attended any music activities here?

Mrs. O: I have sat in on a few, but just listen and tap my foot. I'm looking forward to discharge, have a good rest of your day.

Dr. R: You, too.

Sixteenth Coded Interview, Ms. P

Dr. R: Can you tell me about when you learned to make music?

Mrs. P: We had a player piano in our basement growing up and cabinets full of music rolls. I was fairly young when I first learned to properly put a music roll on the piano and get it to play. I would sit at the piano and hit the same keys as they depressed, trying to memorize the fingerings of each song. When the roll finished, I would try and reproduce the song by repeating the fingerings I just tried to learn. I would repeat this process over and over and over. I wasn't a fast learner so I don't know how I marshalled the determination to persist but I did. There must have been something good about it, but I am not sure what, unless it was just the belief I would eventually get it. I guess I also liked the player piano in its own right. Just listening to it was fun. It felt frustrated in the beginning, it even spilled over into my daily life, it wasn't contained to my time on the piano in the basement. I wondered if I would ever be able to commit them to memory. Normally, I wasn't a frustrated type of person, but it was hard for me. [AFF], [COG], [BENE], [DET], [CON BS], [CON EM], [AUD], [ENV].

After I had a few songs fully committed to my mind, and felt confident enough, I would plan get-togethers with friends who had a piano in their house, even if they didn't play and when the opportunity presented itself, I would mention I played, sit down at their piano, and play a couple of tunes. Once I finished all I knew, I would act like I had my fill of playing and get up from the piano rather than explaining how I learned the pieces. They were always impressed and it made me feel good. I never had any real music lessons, so on some level I felt guilty, like I cheated. I just learned to play by banging on the same keys that depressed as the player piano did its thing. Sometimes when alone I would try combining some fingerings I knew from different pieces but that was never successful until much later. [AFF], [BEH], [COG], [BENE], [DET], [AUD], [ENV].

Dr. R: People have described differences between their reactions for the days and/or weeks prior to a performance, reactions in the minutes leading up to a performance, reactions during a performance, and their general reactions about performances when none is pending. Did you notice differences back then, and if so, how would you describe them?

Mrs. P: As I mentioned, I was generally a relaxed type of person but if I knew I was going to a friend's house where there was a piano, I would get a little anxious during the days preceding it, and it would get worse once I was there. I was always happy during the demonstration of my skills. I always knew I would stop playing and get up as soon as I finished the pieces I knew. [AFF], [COG], [BEH], [DET], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: What changed later in life?

Mrs. P: I still have the player piano in my home, but several years ago, my daughter bought me an electric piano that also works like a player piano. The keys don't actually depress as the notes are played but they light up, and there is software so you can see the musical notes on a score as the music plays. They also have scales that I started playing and subsequently improvising with. I am starting to feel like a real musician. Once I mastered the scales, it gave me more flexibility, it gave me more flexibility to improvise,

which always brings me a lot of joy, and to answer your prior question, but in this context. I feel great before, during and after playing the piano. [AFF], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Do you engage in any of the musical activities we have for the residents?

Mrs. P: No, not unless you count listening to music on my phone, or the classical channel on the TV, they are both enjoyable and help pass the time. I sometimes do my exercises in bed or in my chair while I'm listening to music. The stronger I get, the sooner I can get out of here. [AFF], [BEH], [BENE], [AUD], [ENV].

Dr. R: Do you experience increases or decreases in positive or negative emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences when engaged in musical activities at this stage of life?

Mrs. P: I play my electric piano for family and friends, and I guess I feel differently depending on who will be visiting, but I am not certain that has to do with how I think they will react to my music, or how I just feel about them in general. I guess, I don't enjoy playing as much for some friends compared to others, and the personalities of the people in the audience, it all clearly impacts me differently, the quality of my performance. If I am bored, or irritated you can hear it. For the most part, it is still fun before during and after playing. [AFF], [COG], [BENE], [DET], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Seventeenth Coded Interview, Mr. Q

Dr. R: Can you tell me about when you learned to make music?

Mr. Q: I took private violin lessons starting in the 7th grade. My mother thought it would help with getting into a good prep school, and college. I thought so, too, and it might have motivated me to practice but it did not help me like it. I would also get nervous starting the day before my scheduled lessons and it would get worse on route to my lessons. How I felt afterwards always depended on how well I thought I did and to a lesser extent, how difficult my next assignment seemed. . [AFF], [BEH], [COG], [DET], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Can you tell me about any emotional, behavioral or physiological nervousness?

Mr. Q: I hated it. I could hyperventilate, feel anxious, dizzy, restlessly pace around, and sweat. [AFF], [BEH], [COG], [PHY], [DET], [CON BS], [CON EM], [AUD], [ENV]. Once I got into prep school, I stopped taking lessons. Every now and then I would pick up my violin and try to play along to a classical radio station. I liked that, but not enough to start practicing again. I avoided taking any music classes, but that did not stop me from mentioning that I played violin ever since taking lessons starting in seventh grade when I applied to college. [AFF], [BEH], [BENE], [DET], [AUD], [ENV].

Much later in life when I picked it up again, that time it was my own decision. I practice by putting the Carnegie Hall channel on the TV and improvising along with my instrument. It is my answer to the old question of how to get to Carnegie Hall. I can imagine myself as part of the orchestra, a poor man's version of virtual reality. I love it, and feel inspired. [AFF], [BEH], [COG], [BENE], [CON BS], [AUD], [ENV].

Dr. R: Were there other kinds of settings that you made music in, and what type of audience, if any did you have?

Mr. Q: Not really, I mostly play at home, in fact for the most part, I play exclusively at home, but not always alone, and I like it, well enough either way, though I am more at ease when I am alone, it's enjoyable. [AFF], [BENE], [AUD], [ENV].

Dr. R: Do you play in any other situations?

Mr. Q: I still do it, at home that is. I wish I could read music better. It would be great to be able to play along with the orchestra on the TV rather than just improvising, so I also stream YouTube classical violin lessons. I can't say it's like a party, but I can say that I don't hate it, I don't get nervous and I'm motivated to practice. If I had felt like this when I was in seventh grade, I would be a violin virtuoso. We will see how things turn out, but I am generally feeling good about it and look forward to getting home so I can pick up where I left off prior to ending up in a hospital, and then here. I did not bring in a laptop or my violin so I will just have to wait and be content listening to music and playing air guitar, but with an imaginary violin. [AFF], [BEH], [COG], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

(a technician entered the room with a portable scanner). my music activities continued unchanged most of my life Sorry Dr. Reiss, it looks like we will need to end this early.

Dr. R: That's okay you actually gave me a lot of information in a short time.

Eighteenth Coded Interview, Ms. R

Dr. R: Can you tell me about when you learned to make music?

Ms. R: We had a piano in the house for as long as I can remember. I think my parents owned it before they ever had us kids. No one seemed to ever play it. We had a cat that would jump up and walk across the keys, but no one else. When I was old enough I started banging on it and a friend taught me chopsticks. As my tenth birthday approached I started asking my mother for piano lessons and she finally caved in. My piano teacher came once a week, she was really nice, and made me feel great. I was always so excited for a day or two leading up to our lesson. It was difficult to sleep the night before, kind of like Christmas eve happening on a weekly basis. I was so determined, and practiced on a daily basis. I was focused on what I needed to accomplish. I never understood why some people felt overwhelmed by all the required practice, for me it was a pleasure. I was so thankful my parents arranged lessons for me. [AFF], [COG], [BENE], [CON EM], [CON BS], [AUD], [ENV].

Dr. R: Aside from all the pleasure experienced while playing the piano back then, did you have any other reactions leading up to, during or following any musical performances, either positive or negative, such as emotional responses, behaviors, thoughts, cognitive skills, physiological reactions, or even spiritual experiences?

Ms. R: I do not recall any negative reactions. It was exciting and pleasurable, even when struggling at home with a difficult piece. I don't recall any worries, nervousness or disheartening feelings. Sometimes I would have anxious or dysphoric feelings about examinations in school, but not about performing music, not under any circumstances. I don't know why it was different, but I just wasn't bothered by my music teacher's demands. I always accomplished whatever she expected of me. I took pride in my skill. [AFF], [COG], [BENE], [CON BS], [AUD], [ENV].

Dr. R: When did those lessons continue until, what was the next phase in your musical development and did your behavior change or did you experience other reactions?

Ms. R: I continued lessons all the way up through high school. Sometimes I played for friends. I could probably count on my fingers how many times I played piano during my college years. Other than at home while on vacation, I just did not have access to a piano. I still enjoyed listening to music but I couldn't perform. Once I was out in the work force, I saved up and bought myself a small upright. It was my best friend and brought me a lot of pleasure. At work I would sometimes daydream about getting home to my piano. Every time I moved from one apartment to the next, I had to hire movers that specialized in moving pianos. I was lucky, no matter where I lived, no one complained. I knew it was best to only play during daytime and early evening hours to avoid any complaints. [AFF], [COG], [BEH], [BENE], [CON BS], [AUD], [ENV].

Dr. R: What about later in life?

Ms. R: I never married and did not have any children. I was an only child so I don't have siblings nieces or nephews. I'm used to being alone. I had a few relationships that were important to me but no great loves to speak of. As a result, my music activities continued unchanged most of my life, or at least not until I signed up for evening classes at Juilliard

about ten years ago. I had to audition to be accepted into the rigorous piano classes. I worried about that for a few weeks, I lost my appetite, didn't sleep well, and tried to focus on practicing so I would be accepted, but wasn't doing well. It was challenging in different ways. I was nervous and it really got intense the day of the audition. I was pacing back and forth outside the room because someone was inside practicing. Other people were in the hall, too. As it turned out so was the instructor. I was anxious right up to when I actually sat down at the piano. The instructor must have noticed my anxiety in the hall, or right then because he said, "Don't worry, this isn't like the auditions for the limited high school slots when the entire building is filled with kids crying after hearing the bad news. If you can read and play music, and I don't mean anything complex, you're in and I will be working with you to develop your skills. I already read in your application that you can sight read, so just relax and play this for me." What a relief that was. I may have been driven to do well in class with him, but never anxious again. I am so pleased with the progress I made. Playing the piano has been brilliant ever since that training. I'm confident, relaxed and happy. **[AFF], [COG], [BEH], [DET], [BENE], [CON BS], [CON EM], [CON GD], [AUD], [ENV].**

Dr. R: Have you found your way to the piano here yet?

Ms. R: Yes, at first I needed help getting into a wheelchair for physical therapy, so I missed being able to play. It wasn't long after being able to transfer into the wheelchair, before I could use the walker, so I did not have to use the wheelchair to play for very long. Now, I take my walker over there every day and play for an hour after lunch. Everyone seems to enjoy it and it is a pleasure to play for them. **[AFF], [BENE], [CON BS], [AUD], [ENV].**

I'm going home in a week and I have an appointment the next day to have my piano tuned. I'll miss the people here, especially the physical therapists. You have a great team. They worked wonders with me, but I am really looking forward to getting home and cooking for myself again. They should really make the staff eat the same food they feed us. It is usually substandard.

Dr. R: They do serve the same food in the staff cafeteria. Timing is everything in life. If you arrive at the very start, all the different meals are laid out on platters and it is difficult to decide on what to have. But, a half-hour later one platter is empty, and you know that is what you should have had.

Ms. R: You look like someone who really enjoys a good meal.

Dr. R: My wife learned to cook at the Cordon Bleu in Paris in her 20's, but I have a theory about one's perception of food when stuck in a hospital or facility like this. When I worked in the city at St Vincent's Hospital before the nuns let the business people bankrupt the place, my wife was there for a few days and was complaining about the food. I went out to our favorite French restaurant, got a nice chicken dinner with all the fixings, brought it back to the hospital, placed it a plate with a hospital lid and utensils, and had someone from dietary bring her the tray. Afterwards, I asked how her meal was. She said, "Terrible." The moral of the story is, not much is usually fun in a place like this, but I am glad you have been able to enjoy the piano.

Ms. R: Thanks Dr. Reiss, give my best to your wife.

Nineteenth Coded Interview, Mr. S

Mr. S: Good morning, Dr. R, nice to see you.

Dr. R: *It's nice to see you, too.*

Mr. S: What is the plan for today?

Dr. R: *As we talked about, today is the day I would like to ask you some questions about your life making music.*

Mr. S: That's fine with me.

Dr. R: *Can you tell me about when you first learned to make music when you were young?*

Mr. S: As a little kid I played the recorder, I wasn't very good, but I did not have a good sense of whether I was good or not. I did not seem to care if I bothered anyone or not. It wasn't very loud, I played in my room, and no one complained. I just had fun making interesting noises, if not music. [AFF], [ENV], [AUD].

When I got older my father rented me a saxophone. I also started to take music lessons, still practicing in my room. [ENV], [AUD].

Dr. R: *Can you describe what it was like then?*

Mr. S: It was a small apartment in Detroit. Our family was the only Jewish family on the block in a mostly black neighborhood. My room was like a walk-in closet off my parents' bedroom. I had a window to the back courtyard, where you could hear all the neighbors as they hung out their windows and yelled across the courtyard to talk to each other. They could hear what was going on in our home, too, not because we yelled out the window, but we were loud, me with my saxophone and my parents with their activities. J, one of the kids, two years ahead of me, would heckle me when I would play, calling out the window, and at school he would make fun of my saxophone playing, and worse he would make jokes about my parents because my mother was a screamer when they made love and everyone in the neighborhood could hear them. It was always really embarrassing, especially when they went at it. [ENV], [AUD], [AFF], [CON BS], [CON EM].

Dr. R: *What happened?*

Mr. S: No one said anything about it in the neighborhood even while it was going on, not even J. He heckled me from the courtyard as I played the sax, which I dreaded, it was nerve racking, made me angry, tense and restless, I couldn't stand still, it sucked. [ENV], [AUD], [AFF], [COG], [CON BS], [CON EM].

But he was dead silent when my parents were having sex. I guess no one wanted to confront my father, but J did not hold back at school. The things he said were cruel and disgusting.

Dr. R: *What did you do and did it effect playing music?*

Mr. S: My father ordered me to practice every day after school and he would check on me asking everyone to see if I did. I wasn't going to disobey him, so I practiced, and practiced, and practiced, whether I liked it or not. It wasn't much fun. [ENV], [AUD], [AFF], [CON BS].

Dr. R: *It sounds like a tough situation, please tell me more.*

Mr. S: I sure was, I would be thinking about having to practice and worried about the reaction from the J and the gang of kids he hung around with whether I ran into them or not. [COG], [AFF], [CON EM].

When I did see them on my way home the other kids in the neighborhood added to what J was heckling. I tried to avoid them, sometimes running home, and practicing early in the hope I would get it done before J got home; other times I procrastinated but always before my father got home. [BEH].

He demanded it get done beforehand because dinner was always soon after he got there, but I don't think he cared to listen, and I was just as uncomfortable with him listening. Sometimes he would ask me to play a piece I knew best, but he never wanted to hear a new piece I was working on. [AFF], [CON BS], [ENV], [AUD].

Dr. R: How did those performances go?

Mr. S: Whenever he asked me to play something my anxiety always went up to the highest register, but since he always said play the one you know best, it made the performance easier. I don't know how I would have handled struggling through a new piece in front of him. Struggling through a new piece would have been dreadful. [AFF], [CON BS], [ENV], [AUD].

Dr. R: What about when it was time for your lessons, how did they go?

Mr. S: My mother would let me have my lesson with Mr. Z in the living room, which was situated in the front of the building on the street side, so the courtyard was not in earshot. Because of my father's orders, I was always prepared, and Mr. Z was kindhearted, so I really looked forward to our lesson all day, even the night before if not distracted by my parents. I really appreciated our time together. He taught me so much, I liked play for him and with him, too. [BENE], [AFF], [COG], [CON BS], [CON EM], [ENV], [AUD].

Dr. R: What about physiological reactions, such as, hyperventilation, increased heart rate, perspiration, or response you may or may not have had as a result of making music in those days?

Mr. S: I would get nauseous before practices after school, but I would practice anyway, but when J started heckling me, my breathing sometime became irregular and negatively impact playing. Other times, I became agitated, furious really, and I aggressively hit discordant notes just to annoy J more, knowing he might strike back another day. [AFF], [PHY], [BEH], [CON BS], [ENV], [AUD].

Dr. R: What else can you tell me about life with music back then?

Mr. S: It got worse before it got better. J and his gang of delinquents decided to jump me on the way home one day. They played keep away with my sax and its case, damaging them before it was over. It was going to need professional repairs, so I had to tell my father. I did not know what to expect.

Dr. R: How did he take it?

Mr. S: He interrogated me until he knew the whole situation, minus the part about my mother. Then he started giving me advice and he told me to do exactly what he said regardless of how much it could hurt. He told me to call out J and fight him at school. He said even if J beat me to a pulp, but I just had to face him down and get in a few good punches. Then he gave me a quick boxing lesson and warned me as soon as I knew I

might not be able to fight any longer I had to save the energy to charge him grab J around the middle straddling his right leg, lifting up my right foot and slamming down with all my strength crushing his left ankle so it would buckle out and break. I promised my father I would do exactly what he told me, and I broke his ankle, when a teacher intervened J said it was an accident. That night I looked really bad, and my father told me, I had to go right up to J the next day and tell him I was sorry I broke his ankle, as if it was an accident, and tell him he surely would have kicked my ass even more if that hadn't happened. We actually became friends after that.

Dr. R: What reactions did you have about practicing after that?

Mr. S: He stopped heckling me from the courtyard though sometimes he would make a joke if it was just the two of us, never in public, and he never mentioned my mother again. For some time after that I could still get nervous about messing up a piece I was learning, but it wasn't that upsetting relatively speaking. I never forgot how I used to feel and sometimes later in life I experienced similar feelings before a performance, but never so extreme. [AFF], [PHY], [COG], [CON BS], [ENV], [AUD].

Dr. R: Can you tell me more?

Mr. S: I was still embarrassed about my parents' sex life, but I started practicing in my room with excitement. I actually enjoyed practicing and felt good throughout the week except when I had a really difficult piece to learn. I noticed I would tighten up some then, and things deteriorated from there. [BENE], [DET], [BEH], [CON EM], [CON BS], [ENV], [AUD].

Dr. R: Can you try and describe how things changed, if at all, later in life?

Mr. S: In high school, I joined a street band, and we would play on the corner with for friends and the neighborhood, including J, we played the Motown station on the transistor radio and would jam along to the music. I was mostly relaxed and happy about playing in those days; [BENE], [AFF], [CON EM], [ENV], [AUD].

In college my nervousness started to grow again. I studied music. Although the teachers were great, the teacher assistants were downright evil and graded like they wanted everyone to flunk out. They sometime made me nauseous. If I knew I had a meeting with a teacher assistant coming up or a performance they would attend I worried and dreaded it for days ahead of time and it would really bother me just before the event, but once again it wasn't as bad a grade school, yet breaking ankles wasn't a possible solution to this stress. [COG], [PHY], [AFF], [CON EM], [CON BS], [ENV], [AUD], [DET].

On the bright side, as soon as I started playing a piece I liked, nothing could bother me, my mind and emotions just got lost in the music, it was wonderous, and transcendental. [COG], [AFF], [SPI], [CON BS], [BENE].

But after college, I don't know why, I just stopped playing music for a long period of time; I did not read much for a few years either. I guess I had my fill during college and needed a break. I went into business, and it took up most of my time. I didn't like playing music much anymore. The study of music was too cerebral, and took all the fun out of it, but I still enjoyed listening to music [COG], [AFF], [CON EM], [ENV], [AUD].

After completing an MBA, I worked in various industries but eventually returned to music in the licensing business.

Dr. R: What other experiences have you had making music?

Mr. S: After getting married we moved to the Detroit suburbs and then to Manhattan, but we did not like the city and bought a house next to a farm on the North fork. I started playing again after we had children.

Dr. R: What reactions if any did you have before or during musical performances in those days?

Mr. S: I would play at home with family around, outside with farm animals around and home at dinner parties with friends around. It was always pure pleasure when I played, no worries. [BENE], [AFF], [CON BS], [ENV], [AUD].

I mostly stopped playing after my wife died, it wasn't fun anymore, or at least it wasn't good enough to take away the pain of loss. [DET], [AFF], [CON EM].

Dr. R: That must have been rough. How is it making music at the nursing home?

Mr. S: I don't own a saxophone anymore. I liquidated everything, moved in here and went on Medicaid, but I did manage to pick up a plastic Yamaha alto recorder. The sound is actually alright for plastic. I ruminate about how life sometimes comes around full circle. It doesn't make me feel good. I'm back to the recorder I started with. They have me wearing a diaper because I can't make it to the bathroom on my own, a couple of residents heckle me to stop playing, which really ticks me off because they like to go to bed right after dinner. [COG], [AFF], [CON EM], [CON BS], [ENV], [AUD], [DET].

Dr. R: What about the music groups?

Mr. S: I still get a little apprehensive thinking about our groups just before them but it's mild and the drumming circle is easy and a lot of fun, I look forward to it all week.

[COG], [AFF], [CON BS], [CON EM], [ENV], [AUD], [BENE].

Dr. R: Is there anything else you want to share?

Mr. S: Not that comes to mind.

Dr. R: If it is alright with you, I'll type up everything we talked and share it with you for your review, and comments.

Mr. S: Thanks Dr. R, I hope I was helpful.

Dr. R: Yes, thank you. I'll see you soon.

Mr. S: Have a good day.

Twentieth Coded Interview, Mr. T

Dr. R: Can you tell me about when you learned to make music?

Mr. T: Well, it all started when I learned to use bird calls while hunting turkeys and ducks. Birds love to sing and make music and I could lure them in by learning their bird calls. It wasn't strictly for fun, though I enjoyed it thoroughly. We lived on a small farm in the back woods of Virginia near the Shenandoah. Some might argue it wasn't music making, but I would strongly disagree. [BENE], [AFF], [CON BS], [CON EM], [AUD], [ENV].

My mother was a great cook and could prepare any bird like you were in a French country restaurant. If we didn't bring home a few birds on a regular basis, our dinner table was less fulfilling.

Dr. R: People can have specific reactions prior to, or during musical performances; can you give me examples of reactions you had leaning, and/or using bird calls back then?

Mr. T: What do you mean by reactions?

Dr. R: I want to explore if anticipation of a musical performance, or did playing music ever effect how you felt emotionally, or result in changes to your behavior, thoughts, physical reactions or even spiritual experiences. Let's start with making bird calls, what kind of positive or negative reactions did you experience, if any?

Mr. T: Well, I loved going out hunting and fishing with my father and older brother. We hunted other game, too, but birds required a different skill. My father was tuff so when he told me to study bird calls, and to remain quiet when we were hunting birds until I proved to him my calls were good enough, that was all the motivation I needed. Even though he was strict, I don't recall ever getting nervous about it. I loved bird calling and was diligent about learning. I picked it up rather quickly. You asked if it was spiritual in any way? [BENE], [AFF], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Yes.

Mr. T: I did have a sense I was communing with nature, with God's creation. Of course, as I said, the goal was to lure them in so we could shoot them and eat them, which sounds more like the devil's work, but in Genesis God did tell Noah that animals were all fair game for mankind to eat. I never did it for a trophy or a stuffed bird on my mantel. [SPI].

Dr. R: When you learned to use bird calls, did you use different bird call whistles, or did you learn to mimic the different calls with your vocal cords?

Mr. T: I used a call whistle first but eventually learned to make most of the calls myself.

Dr. R: What other musical skills did you develop throughout life, and let's take them in order from childhood until now?

Mr. T: Alright then, in High School I picked up the bugle and tried other horns that aren't keyed. I didn't really care much for my music teacher. He was a good musician, but not a great teacher. He wasn't very approachable, and when I would get up the courage to ask specific questions about playing the bugle, he would just refer me to books and other resources without offering any concrete answers or showing me on the bugle. I just didn't like him or the whole process of studying under him. I was usually nervous and annoyed if not angry when dealing with him. In that state bugling went down the drain. [DET], [AFF], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: Different people experience nervousness and anger in various ways. Can you share any emotional, behavioral, physiological or other reactions you may have had dealing with your teacher and preparing for lessons, or performing in those days?

Mr. T: I practiced a lot on my own at home, but I cut a lot of school. I just didn't like performing for him; he never played with me and his critique was of little use to my learning. . [DET], [AFF], [BEH], [CON BS], [CON EM], [AUD], [ENV].

Dr. R: And what about your nervousness; how did you experience that?

Mr. T: It was hard to sit still, I just wanted to get up and leave. I also must have sweated profusely. Though I did not notice it during the lesson, my shirts were always stained under the arms and around the collar when I got home from schooldays with a lesson. [DET], [PHY], [BEH], [CON BS], [CON EM], [AUD], [ENV].

I did continue to play on my own. I excelled at it, and that was always fun, I loved the bugle. [BENE], [AFF], [CON BS], [CON EM].

Dr. R: Tell me more about how your skills developed and what reactions you experienced during those periods.

Mr. T: At college they had a lot of required courses and I never got to take music before discontinuing my studies, but I was resilient. After dropping out of college, I got a job shoveling out horse stalls. Slowly, I went from a stable hand participating in hunts, to moving in more affluent circles. I was getting invited on fox hunts, not because I was part of that social group growing up, but because I could ride and play the bugle, even while going over a jump. Prepping for the hunt, and participating was always very exciting. I could feel my heart pumping in anticipation. It was simply wonderful. [BENE], [PHY], [CON BS], [CON EM]. I don't recall noticing my heart during the hunt, but I'm sure it was a quick as the horses. I had other things to focus on. My anxiety about playing the bugle had little to do with my music skills, and everything to do with worries about not being accepted in the group. My thoughts were all tied up with feeling like an imposter. [DET], [COG], [CON BS], [CON EM].

I wasn't a member at the hunt club. The worries and nervousness subsided and were replaced by a sense of calm confidence later in life, after becoming successful in business and being accepted into the different clubs. I started openly embracing my background as a true American Dream. I was proud of my rags to riches accomplishments. My skill with the bugle hadn't changed, but I enjoyed it more. Indeed, I generally enjoyed life [BENE], [AFF], [COG], [CON BS], [CON EM], [CON GD]. Then I met my wife, she rode horses most of her life and was the greatest thing that ever happened to me. We have three daughters and they all ride, play an instrument and have become successful in their own right. Then there are my grandchildren but that's not why we are here. You can listen to me brag about my family any time.

Dr. R: Tell me more about music making during those years.

Mr. T: I had hurt my back taking a jump while playing the bugle during a hunt. It hurt when I played the bugle for a while. I had to do crunches and build my core muscles before it stopped hurting and my bugling was back to normal. My family makes music together and separately, at home and at events, in every and all situations when I played, I felt calm, confident, happy and in good form. On occasion, I might feel badly if someone in the family had a performance I attended and they were clearly struggling, but that had

nothing to do with my reaction to my playing or plans to play music; it was just a empathic response to their situation.

Dr. R: What about the time leading up to and following admission to the nursing home.

Mr. T: Well, as you know my wife developed Alzheimer's and I cared for her at home for years until she passed. Music took on a new meaning in those days. Even when she couldn't remember the children we had, she still had a clear memory of the songs. I truly believe she would have forgotten who I was much earlier in the progression of her disease if she hadn't associated me with the music she never seemed to forget. Music provided her a link to our past, and it had a new meaning for me. I'm not a religious person, but I do believe your spirit is carried on through the people you impact in life. My wife's spirit is alive in me, and I remained alive in her and will remain alive in my children and friends, through my music and their memories of me. [BENE], [SPI], [AUD], [ENV].

Dr. R: And the nursing home?

Mr. T: As for the nursing home, I shattered my hip, not long after she passed. They said I was too old for a hip replacement. So, I never made it home from here and was moved over to the long term wing. Most of the family visit regularly, some live in other parts of the world but keep in touch. I enjoy listening to music on a regular basis and when I play here I use a bugle mute so it doesn't echo through the entire facility. Not everyone likes the sound of a horn so I feel more uneasy about playing, nervous and worried about what others will think of me. As accomplished as I became in life, I suppose I never completely got over feeling out of place at the hunt club when I was young. But, all-in-all, putting in the effort to play music is worth it. I am happier, even joyful, I feel healthier, stronger, more resilient, socially engaged, alive, worthwhile, and connected to the world, even while stuck in here. Thanks for stopping by. [DET], [BENE], [AFF], [BEH], [COG], [CON BS], [CON EM], [CON GD], [AUD], [ENV].

Dr. R: Ok Mr. T, until next time, take care.

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