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How Professional Pianists Experience Music Performance Anxiety

by Erin Dempsey and Gilles Comeau, University of Ottawa

One of the most important aspects of a professional career in music is public performance. Feelings of nervousness commonly accompany the musician before, during, or even after a performance. For some individuals, this becomes an "exaggerated, often incapacitating fear of public performance" (Wilson & Roland, 2002, p. 47), which is classified as music performance anxiety (MPA). A comprehensive definition from Kenny (2011) states that music performance anxiety is "an experience of persistent anxious apprehension related to musical performance and is manifested through a combination of psychological, physiological, cognitive, and behavioral symptoms. It often occurs in situations involving an evaluative threat (audience)" (p. 433).

Research indicates that anywhere from twenty to seventy percent of musicians suffer from music performance anxiety (Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988; Kesselring, 2006; Lockwood, 1989). However, while performers share this general problem, considerable differences exist in individual manifestations of performance anxiety. Examining physical symptoms of anxiety provides an example of differences occurring between musicians. Typical physiological symptoms include increased heartbeat, numbness, shortness of breath, shaking, sweating, trembling, muscle tension and gastrointestinal disturbances (Brandfonbrener & Lederman, 2002; Hallam, Cross, & Thaut, 2009; Kenny, 2011; Kesselring, 2006; Wilson & Roland, 2002), and individuals experience all, some, or none of these symptoms with different intensities. As well as varying between musicians, symptoms can also be inconsistent within a performer. For example, someone may struggle to control shaking hands before an audition, but experience no difficulties with trembling during a recital. Differences in performance anxiety also exist when examining cognitive, psychological, and behavioral symptoms (Kenny, 2011).

With regards to music performance anxiety, some researchers have examined common symptoms of anxiety (Osbourne & Kenny, 2005; Kesselring, 2006; Hallam et al., 2009), the prevalence of music performance anxiety among musicians (Biasutti & Concina, 2014; Fishbein et al., 1988; Papageorgi, Creech, & Welch, 2011), and different predictors of performance anxiety, such as gender (Kenny, Davis, & Oates, 2004; Iusca & Dafinoiu, 2012; Ryan, 2004), perfectionism (Kenny et al., 2004; Mor, Day, & Flett, 1995), and musical experience (Biasutti & Concina, 2014; Kenny, Fortune, & Ackermann, 2011). As well, several studies have investigated the effectiveness of different interventions when treating performance anxiety (Braden, Osbourne, & Wilson, 2015; Hoffman & Hanrahan, 2012; Kendricks, Craig, Lawson, & Davidson, 1982). However, no studies have investigated the experiences of music performance anxiety among world-renowned, professional pianists and the ways in which they describe performance anxiety in their own words. Kenny (2011) conducted a study that presented the craft knowledge of professional musicians with regards to performance anxiety. Kenny (2011) conducted interviews with twenty orchestral musicians and used a grounded theory approach to identify common themes in the musicians' experiences with performance anxiety. Our paper will examine music performance anxiety in a similar manner to Kenny's (2011) study, in that it discusses professional musicians' personal accounts of music performance anxiety. However, our paper differs from Kenny's (2011) study in a few different respects as it focuses specifically on world-renowned professional pianists as opposed to orchestral musicians. While some aspects

of performance anxiety are shared between the two types of musicians, their experiences of performance anxiety can also be quite different. For example, Kenny (2011) explores the impact of conductors and other orchestral members on performance anxiety in orchestral musicians. As solo pianists do not have to contend with conductors or play with other musicians as often, this aspect of performance affects them to a lesser extent. Another example which will be explored more in-depth in our paper is memorization. Solo musicians are expected to perform from memory, while it is common practice for orchestral musicians to perform with their music onstage. The differences in performance anxiety and these differences justify the need for a separate study exploring the experiences of performance anxiety among professional pianists. To investigate this topic, content analysis was used to identify common themes emerging from descriptions of music performance anxiety obtained from biographies, autobiographies, and interviews with sixty-three pianists.

Method

Sampling

Sampling in basic content analysis often consists of several stages. First, the researcher must select a specific body of texts to study. This is referred to as the population, which includes all resources on the chosen topic of study (Weber, 1990). Within that body of literature, relevant subunits of interest relating to the topic must be identified, providing the sample for the project. Once the sample is established, subunits can be broken down into smaller subunits if deemed necessary by the researcher, and the coding process can begin.

The population of study chosen for this project was personal accounts of music performance anxiety provided by world-renowned professional musicians. To identify a sample of references containing descriptions of experiences of performance anxiety from professional musicians, a literature search was performed by the researcher. Several databases, including the Library Catalogue, ProQuest databases, JSTOR, and RILM were systematically searched using the keywords music performance anxiety, music biography, musician biography, and musicians. As well, searches using call numbers ML 417 and ML 397 were conducted in the library databases to locate individual biographies of pianists and collective biographies of pianists, respectively. A total of 695 references were located through these searches. For searches yielding more than fifty references, the authors reviewed the first fifty to limit the scope of the search. For searches vielding less than fifty entries, all references were reviewed. Once the references were located, titles and abstracts were read to determine the relevance of each piece of literature. References referring to musicians that were not pianists were excluded, as well as scientific papers. All biographies, autobiographies, or interviews with pianists were included in the reference list. After reviewing titles and abstracts, fifty-eight resources were identified as potentially relevant and used as the sample of this study. Of the fifty-eight resources examined during the content analysis, twenty sources contained written passages of pianists describing instances of performance anxiety that were coded and used for further analysis (See Table 1).

Table 1

Sources containing passages describing performance anxiety, organized by pianist

Pianist name	Reference
Arkady Aronov	Goldberg (1999)

John Arpin Claudio Arrau Vladimir Ashkenazy Harold Bauer Seymour Bernstein Johnathon Bliss Jorge Bolet Alexander Brailowsky Alfred Brendel John Browning Martin Canin Bella Davidovich Alicia de Larrocha Misha Dichter Simone Dinnerstein Youri Egorov Janina Fialkowska Rudolf Firkusnv Leon Fleisher Claude Frank **Emil Gilels** Gary Graffman Percy Grainger Nancy Lee Harper Alice Herz-Sommer Myra Hess Vladimir Horowitz Stephen Hough Ernest Hutcheson Gilbert Kalish Perri Knize Lili Krause Frederic Lamond Josef Lhevinne George Liebling Radu Lupu **Dorothy Munger** Mitja Nikisch Garrick Ohlsson Steven Osbourne Irina Osipova

Popple (2009) Mach (1980) Mach (1980) Bauer (1948) Bernstein (2002); Bernstein & Harvey (2016) Benser (2012) Mach (1991); Noyle (2000) Brower (1969) Mach (1980) Mach (1980); Noyle (2000) Goldberg (1999) Noyle (2000) Mach (1980) Mach (1980); Noyle (2000) Benser (2012) Mach (1991) Mach (1991); Noyle (2000) Mach (1980); Marcus (1979); Noyle (2000) Noyle (2000) Marcus (1979) Mach (1991) Graffman & Schonberg (1981) Brower (2003) Grindea (2007) Stoessinger (2012) Brower (1969) Mach (1980); Plaskin (1983) Benser (2012); Mach (1991) Brower (2003) Goldberg (1999) Knize (2009) Roberson (1985) Brower (1969) Brower (1969) Brower (1969) Grindea (2007) Sorley (1996) Brower (1969) Marcus (1979) Benser (2012) Grindea (2007)

Content Analysis

Content analysis was used to identify major themes existing in professional musicians' accounts of music performance anxiety. According to Weber (1990), content analysis "is a research method that uses a set of procedures to make valid inferences from text" (p. 9), where the inferences made about the text can be about the sender of the message, the message itself, or the audience of the message (Weber, 1990). Content analysis can be used for a variety of different research purposes, including determining the psychological state of a person, examining cultural patterns of groups or institutions, revealing the focus of individual or societal attention, and describing trends in communication content (Weber, 1990). This paper uses basic content analysis, which is a method where researchers analyze existing texts by calculating the frequencies of specific words or units appearing in the literature (Drisko & Maschi, 2015). Basic content analysis is a quantitative technique and is used in this paper to focus on manifest content, which is content that is overly presented in a communication (Drisko & Maschi, 2015). Other types of content analysis include interpretive or qualitative content analysis. These analytic techniques also consider latent content, which refers to "meaning that is not overtly evident in communication" (Drisko & Maschi, 2015, p. 5). Interpretive and qualitative content analysis are not used in this paper as we were only interested in examining the manifest content of the literature. Basic content analysis assumes that all meaningful content is contained in the text, and can be used to examine large amounts of data in order to identify topics of interest or general themes (Drisko & Maschi, 2015).

To conduct content analysis, recording units need to be identified in the relevant texts (Weber, 1990). Recording units "identify a specific meaningful passage of text or other material" (Drisko & Maschi, 2015, p. 41). Recording units are chosen by the researcher and can consist of words, phrases, sentences, paragraphs, or themes, depending on what is appropriate for the research project (Weber, 1990). Each recording unit is then assigned a code name, which is used to "help identify the content found in the recording unit" (Drisko & Maschi, 2015, p. 41). Assigning code names to recording units can be a complex process that requires interpretive decisions from the researcher. Such decisions can include deciding what code name to assign a recording unit that could fit multiple coding categories or trying to assign a code name to a larger paragraph containing multiple ideas (Weber, 1990). Basic content analysis can use deductive coding, where codes are established prior to analysis based on previous works and theory, or inductively, where codes are developed during the detailed analysis of the data set. This paper uses inductive coding, which is appropriate when there are no pre-existing sets of codes or where theory and previous work on the topic are limited (Drisko & Maschi, 2015). Once coding is completed, various quantitative techniques can be used to analyze the data. This study uses a descriptive design to "provide information that details the character and quality of a sample or population" (Drisko & Maschi, 2015, p. 34). For descriptive studies, code names are assigned to recording units, which can consist of a word, sentence, paragraph, or larger passage. Frequency counts are then used to total the amount of times each code name appears, helping the researcher to identify important topics or themes in the literature (Drisko & Maschi, 2015). Sentences were used as recording units in this study, and a code name was applied to each sentence that described a pianist's personal experience with performance anxiety. Content analysis is a systematic process, and when the above processes are followed in a rigorous manner, the researcher can produce objective, reliable data (Weber, 1990).

From the fifty-eight sources identified in this study sample, each reference was reviewed to identify recording units pertaining to performance anxiety. For online resources, searches were conducted using the keywords anxiety, anxious, nerves, nervous, stage fright, fright, fear, worry, stress, and tense, as these terms are used interchangeably with music performance anxiety throughout the literature. These keyword searches helped identify relevant recording units. Print resources were searched manually by the authors to locate appropriate recording units. Once recording units were identified from the entire sample, inductive coding was used to assign a code name to each unit. While Kenny (2011) provides a list of themes discussed by professional orchestral musicians, there are several reasons these themes would not be appropriate for coding in our study. As mentioned above, orchestral musicians and pianists differ in their experiences of performance anxiety, so using terms developed by Kenny (2011) would not provide an accurate view of pianists' performance anxiety experiences. As well, Kenny investigated experiences of performance anxiety by using grounded theory to analyze interviews conducted with current working musicians. While this study aims to explore a similar topic, basic content analysis is used to analyze pre-existing literature. Finally, Kenny's (2011) paper exists as a book chapter, which does not describe a methodology that could be followed for the current paper. Therefore, since a pre-established set of code names for this topic does not exist, inductive coding was used throughout the analysis process. Code names identifying the main idea of each recording unit were assigned by the researcher, and codes were consolidated, collapsed, or eliminated as the analysis progressed until a final set of working codes was established (Weber, 1990). For example, a recording unit that states "And I don't care what anybody says, every performer, no

matter how secure, always thinks about memory slips" (Noyle, 2000, p. 32) was assigned the code name "memory." Another unit stating "Nerves, I think, come to a large extent from being self-conscious, from being afraid to make a fool of oneself in front of people" (Noyle, 2000, p. 99) was assigned the code name "fear of negative evaluation." To address common coding problems in content analysis mentioned above, large recording units containing multiple ideas were broken down into smaller units that were assigned separate code names. For any small units that could not be broken down and could possibly fit into more than one code name, an interpretive decision was made by the researcher and the most applicable code name was assigned to that unit.

Sixty codes emerged from the text analysis (See Table 2). Frequencies for code names were calculated to determine which codes appeared most often in the literature. Codes that appeared in the sample literature most frequently were identified as important topics pertaining to professional musicians' personal accounts of music performance anxiety. The six codes appearing most often in the literature were identified as emerging themes from the literature and are discussed in the remainder of the paper. Although more than six codes appeared frequently during the coding process (as seen in Table 2), for the scope of this paper, the authors chose to limit their discussion to six themes to provide an in-depth discussion for each topic.

Frequency of code names assigned to recording units from sample literature				
	Total number of times a			
coding name was a				
Code Name	to a recording unit			
Preparation	22			
Memory/performance slips	18			
Type of audience/presence of important people in audience	17			
Focus on music/love of music as a buffer	14			
Fear of negative evaluation	13			
Unpredictability of anxiety	12			
Experience as a buffer/inexperience causing anxiety	12			
Types of performance	12			
Constant presence of anxiety / acceptance	11			
Facilitative anxiety	9			
Physical illness caused by stress/effect of anxiety on				
body/physiological symptoms	8			
Rest (taking care of physical needs, exercise)	7			
Pre-performance anxiety (anxiety leading up to concert)	7			
Self-Doubt	7			
Worry caused by instruments/venues	7			
Conductors/orchestras/other performers	7			
Interpersonal relationships (teachers, etc.)	6			
Discussing anxiety with fellow performers/other performers'				
anxiety	6			

Table 2

Competitions	6
Perfectionism/personal expectations	6
Worry about difficult passages	6
Competitions	6
Decreased performance quality due to anxiety	5
Foreign customs while touring/stress from touring (lack of	
sleep, etc.)	5
Realistic expectations as a buffer	5
Self-confidence as a buffer	4
Not being aware of the need for anxiety/lack of stage fright	4
Stresses placed on young musicians	4
Lack of technique/technical skill/tension while playing	4
Pre-performance rituals	3
Recording	3
Support from audience, other performers, teachers, etc. as a	
buffer	3
Nerves as self-centered	3
Personality (being naturally anxious, shy, etc.)	2
Increased anxiety with more performance	2
Auditions (type of performance)	2
Lack of anxiety training in teachers	2
Catastrophizing thoughts	2
Dislike of performance	2
Successful performance despite stage fright	2
Musical identity (anxiety due to music being entire identity)	2
Parents pressuring children	2
Public speaking	2
Fear of failure	2
Comparing oneself to other performers	2
Explicit monitoring (focusing on what you're doing and losing	
your ability)	2
Goals	2
Problems caused by age	2
Self-talk/positive thinking/visualization	2
Responsibility to the music/composer/audience	2
Recitals	2
Negative childhood experiences (unrelated to music)	1
Perseverance	1
Gratitude as a buffer	1
Injury caused by stress	1
Breathe control, breathing as a buffer	1
Beginner students' anxiety	1
Other life stressors (family, etc.)	1

Mental health issues	1	
Meditation as a buffer	1	

Results and Discussion

The discussion section of this paper is divided into two parts. The beginning of the section will discuss factors that can increase anxiety and includes the themes of memory and performance slips, type of audience, fear of negative evaluation, and unpredictability of anxiety. The end of the discussion section explores factors that protect against or help musicians cope with performance anxiety and includes preparation and focusing on the music.

Memory and performance slips

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Memory/performance slips appeared as a code in the literature sample eighteen times and was discussed by sixteen different professional musicians. A prevailing custom in Western classical music is to perform without the musical score, with soloists often expected to play entire concerts without looking at the music. This tradition causes anxiety for performers because it creates the danger of forgetting the music while playing on stage. Fear of memory slips is the most common problem musicians address in the literature, with Seymour Bernstein, Alfred Brendel, John Browning, Martin Canin, Misha Dichter, Youri Egorov, Janina Fialkowska, Leon Fleisher, Gary Graffman, Percy Grainger, Perri Knize, Mitja Nikisch, Sigismond Stojowski, Herbert Stessin, Ralph Votapek, and André Watts (Bernstein, 2002; Brower & Johnson, 2003; Goldberg, 1999; Graffman & Schonberg, 1981; Knize, 2009; Mach, 1980, 1991; Noyle, 2000) discussing performance anxiety stemming from memorization.

Since professional musicians face this fear on a regular basis, most of the discussion surrounding memorization focuses on how to manage "that terror of forgetting" (Noyle, 2000, p. 74). Stessin believed that musicians could avoid this fear altogether by "going into chamber music, where you don't have to memorize" (Goldberg, 1999, p. 71). In contrast, other musicians decide to confront their fears of making a mistake on stage directly. Seymour Bernstein (Bernstein & Harvey, 2016) recounts a story about a fellow musician's drastic approach to eliminating his phobia of dropping his bow on stage. To conquer his fear, the performer deliberately dropped his bow in the middle of a piece. Once he demonstrated to himself that he could survive a mistake like that, he no longer feared making performance errors, memory or otherwise. While this extreme example was successful for Rabin, most musicians opt for a more moderate approach when addressing memory fears.

Musicians employ various coping strategies to manage fears of memory slips. Preparation and acceptance are two of the most common protective strategies used. Knowing that the danger of making a mistake always exists during live performance, musicians "try to minimize the risk by knowing the piece well" (Noyle, 2000, p. 134). For some professionals, like Ralph Votapek and John Browning, concentration and meticulous practice is enough to combat memory nerves. Others, like Misha Dichter, devise special memorization systems to relieve the anxiety of forgetting (Mach, 1980). Dichter realized that "if the only thing you're going to be worried about is memory, let's find some system" (p. 69), and devised a strategy for learning pieces that relieved his anxiety around forgetting. Thorough preparation produces secure memorization, and the more confident a musician feels in their memory work, the less anxiety they feel while

performing. However, Janina Fialkowska (Mach, 1991) acknowledges that, "No matter how well your memorization methods seem to work...there will be times when you can't seem to catch on right away" (p. 33). Despite careful preparation, musicians recognize that memory slips may happen anyways. Accepting the possibility of making a mistake alleviates stress caused by the unrealistic expectations of playing perfectly onstage. Misha Dichter (Mach, 1980), believes "that if the artist is as perfectly prepared as possible...and then still forgets something, then he's human, thank goodness!" (p. 69).

Some musicians and teachers believe that "it is to be regretted that the custom prevails of playing everything without notes" (Brower & Johnson, 2003, p. 101), and think that the expectation to play from memory should "be done away with—wiped out" (Brower, 1969, p. 189). For these artists, eliminating the tradition of memorization would greatly reduce nervousness. Other artists, such as John Browning (Mach, 1980), express skepticism towards the solution. Since musicians are familiar with playing from memory, he believes that "most artists would be even more nervous and uncomfortable using the score during the concert" (p. 44). Whatever strategy performers choose to employ, it is essential that professional musicians learn to cope with their memory anxiety, as the fear of making a memory mistake can destroy what might have been a fine performance (Brower & Johnson, 2003).

Type of audience

Kenny (2011), a researcher specializing in music performance anxiety, defined MPA as an anxiety that occurs in situations involving an evaluative threat or audience. Type of audience or presence of important people in the audience appeared as a code in the literature sample seventeen times and was discussed by fifteen different professional musicians. Seymour Bernstein, Alexander Brailowsky, Martin Canin, Gary Graffman, Vladimir Horowitz, Perri Knize, Frederic Lamond, George Liebling, Dorothy Munger, Serge Prokofieff, André-Michel Schub, Kendall Taylor, Ernst von Dohnányi, Yuga Wang, and André Watts (Benser, 2012; Bernstein & Harvey, 2016; Brower, 1969; Dohnanyi & Grymes, 2002; Goldberg, 1999; Graffman & Schonberg, 1981; Grindea, 2007; Knize, 2009; Mach, 1980; Noyle, 2000; Plaskin, 1983; Sorley, 1996) discuss how the presence of an audience affects their performance anxiety.

Performance anxiety increases when someone perceived as significant is present in the audience. Significant people include famous musicians or composers, as well as people with personal connections to the performer, such as parents or spouses. Some musicians find performing a piece while the composer is in attendance particularly stressful. For example, Serge Prokofieff (Brower, 1969) described heightened anxiety playing the Rachmaninoff Preludes "when I [knew] the composer himself was in the audience" (p. 231). Vladimir Horowitz (Plaskin, 1983) provides an example of how the presence of a significant personal relationship increases anxiety. At times, Horowitz "begged Toscanini not to attend" (p. 212) his concerts due to the pressure he felt playing for his father-in-law. In Horowitz's situation, performing for a loved one increased his nervousness, particularly when he expected a negative reaction from his father-in-law. Perry Knize (Knize, 2009) expressed a preference playing for an audience of strangers over family members because she felt they were "not here to judge, as my father so often did when I played as a child" (p. 30).

The type of audience affects performance anxiety surrounding lessons and auditions as well. While auditions are inherently stressful, auditioning for a well-known teacher can also increase nervousness. Sorley (1996) and Yuja Wang (Benser, 2012) recount how auditioning for Dorothy Munger and Gary Graffman, respectively, increased their anxiety because now they worried about impressing teachers they admired. While lessons are generally less stressful, teachers can create anxiety if students perceive them as negative or threatening. Gary Graffman (Graffman & Schonberg, 1981) explains that to manage the "occasional twinge of dread" he felt before lessons, he had to have "nerves of steel" to survive his teacher's scolding during lessons leading up to concerts (p. 48). Playing before people perceived as significant increases music performance anxiety.

The performer's perception of the collective audience also affects performance anxiety. Since musicians often feel anxious to impress the audience, an audience perceived as sympathetic or appreciative reduces anxiety. However, an unsympathetic audience has the opposite effect, increasing a performer's worries (Brower, 1969). André-Michel Schub (Noyle, 2000) indicates that when an audience appears supportive, his anxiety is facilitative and "the nerves work for you. If you feel that they are not with you, then it would be hard to play" (p. 112). Whether playing for composers, teachers, personal relationships, or the general population, musicians feel anxiety because they want to "please the public" (Mach, 1980, p. 119).

After reviewing the literature, it is evident that while the presence of an audience is an important stressor, not all audiences evoke the same anxiety response for musicians. Quite often, the presence of significant individuals or the mood of the audience is what increases stress for the performer. Few musicians addressed how they cope with anxiety created by the type of audience they perform for, other than to "try to be totally oblivious to the presence or absence of an audience" (Mach, 1980, p. 82). However, Horowitz explains how he learned to cope with his fears from playing before an audience in his interview with Mach (1980). When struggling with severe performance anxiety, Horowitz recalls that "he played to please the public…which is not always an easy task" (p. 119). When he stopped worrying about impressing the audience, and instead began playing only music he wanted to, his anxiety reduced and his pleasure during performance increased significantly. The idea of anxiety increasing due to worry about an audience's potential reaction ties into the next theme that emerged during analysis.

Fear of negative evaluation

Fear of negative evaluation, common in social phobias, is an apprehension of being unfavorably evaluated by others (Kenny, 2011), and research in music performance anxiety shows that the perceived likelihood of receiving a negative evaluation is related to one of the most common cognitions for predicting anxiety (Osbourne & Franklin, 2002). Fear of negative evaluation appeared as a code name thirteen times in the sample literature and was discussed by eleven different musicians. As potential negative evaluations come from the people listening to the performance, this theme is related to the previous theme. Claudio Arrau, Seymour Bernstein, John Browning, Alicia de Larrocha, Janina Fialkowska, Leon Fleisher, Percy Grainger, Vladimir Horowitz, Frederic Lamond, Alexander Siloti, and André Watts (Bernstein & Harvey, 2016; Brower, 1969; Brower & Johnson, 2003; Mach, 1980; 1991; Noyle, 2000; Plaskin, 1983) discuss their fear of negative evaluation related to performance anxiety.

Performance anxiety increases when musicians worry that the audience will not like their performance and individuals often place great importance on receiving a favorable appraisal. Feeling "a fear of being attacked" (Noyle, 2000, p. 36), "afraid to make a fool of oneself" (Noyle, 2000, p. 99), and unsure of "what the audience response would be like" (Bernstein & Harvey, 2016, p. 21) are just a few examples of professional musicians discussing their fears. Sometimes this creates an animosity towards the audience if musicians, like André Watts (Mach, 1980), feel that "some of them might be waiting for you to mess up" (p. 188). Critics are another form of negative evaluation musicians worry about. Similar to an audience, musicians also fear not living up to critics' perceived musical standards. However, the nature of a reviewer's job adds another layer of anxiety for the performer: a public, negative review poses more potential consequences to a professional career than an unfavorable review from a disgruntled audience member. The potential of a negative review increases the sense of danger a performer feels (Mach, 1991). To cope, some performers choose to avoid reading reviews because "critics make them overly concerned about their artistry and this leads to constant nervousness" (p. 10). For others, such as Claudio Arrau (Mach, 1980), the fear of "not knowing what is being said about him" (p. 10) causes more anxiety. Rather than avoid critics, Arrau tries not to place much emphasis on other people's evaluations.

The fear of negative evaluation often relates to a fear of not meeting an audience's expectations, whether real or imagined. While many musicians battle with their own perfectionistic tendencies, sometimes they must also cope with the audience's unrealistic expectations. Horowitz struggled with this during his career. Plaskin (1983) describes a concert where Horowitz overheard an audience member tell her husband, "That's nothing, wait until what you hear what he does next" (p. 277). This caused Horowitz distress because he had "played his heart out and she says, 'This is nothing, just wait. There's much more, much more, much more'" (p. 277). Despite a wonderful performance, Horowitz's audience still expected more from him, and the pressure of these expectations contributed to a nervous collapse. While this is an extreme example, the sample literature indicates that world-renowned musicians fear the consequences of not meeting audience increases nervousness for musicians, but worrying about trying to appease the audience adds another layer to performance anxiety.

Unpredictability of anxiety

Research shows that perceived uncontrollability or unpredictability leads to anxiety (Kenny, 2011), and musicians often use the term "unpredictable" in their descriptions of performance anxiety. Unpredictability of anxiety appeared fourteen times in the sample literature and was discussed by twelve different musicians. When discussing nervousness, unpredictability refers to the presence of anxiety, onset of anxiety, or intensity of anxiety. Claudio Arrau, Alfred Brendel, John Browning, Bella Davidovich, Alicia de Larrocha, Janina Fialkowska, Rudolf Firkusny, Stephen Hough, Gilbert Kalish, Cecile Ousset, Yevgeny Sudbin, and André Watts (Benser, 2012, Goldberg, 1999; Mach, 1980; 1991; Noyle, 2000) discuss the unpredictability of performance anxiety.

For André Watts, performance anxiety "is always in me, but it's not constant" (Mach, 1980, p. 188). In general, important performances cause musicians increased anxiety, while less important performances decrease stress levels. However, sometimes anxiety levels move in unexpected

directions. Stephen Hough explains how "sometimes it can be the smallest date somewhere, where nothing's really hanging on the outcome that a bad case of nerves really sets in. Yet for my debut at the Hollywood Bowl I was really not nervous at all" (Mach, 1991, p. 137). John Browning described a similar feeling: "I can be as calm as a quiet sea for a New York concert, but nervous as a cat for a performance in a small town" (p. 50). To help manage nervousness, musicians develop pre-performance routines in preparation for concerts, and disruptions in the routine often increase anxiety. However, Bella Davidovich (Noyle, 2000) indicates this is not always the case, when she describes a concert where a fight with a friend, a rip in her dress, and a cut on her finger immediately preceded her performance. When recounting this story, she recalls, "You would think it would have been a bad concert. It was a wonderful concert" (p. 45). In a situation where anxiety was expected, Davidovich experienced none.

Intensity and timing are two other factors that make performance anxiety feel unpredictable. Symptoms of performance anxiety are stronger before some concerts in comparison to others, and appear at various times. As before, the onset and severity of anxiety does not always correlate with the perceived importance of the concert. For Rudolf Firkusny (Mach, 1980), the tenseness "varies in approach and intensity. Sometimes it starts days ahead of the concert, sometimes on the day itself, sometimes just before going on stage" (p. 119). Stephen Hough (Mach, 1991) also explains how anxiety or confidence disappears at unpredictable times, as "There are the nerves...one feels before a performance, which dissipate when the concert begins,...which suddenly fails the artist as he or she walks on to the stage. Or...in the middle of the performance" (p. 137). If anxiety occurs inconsistently for musicians, it can be difficult for a performer to know how to cope effectively. Not knowing when, where, or how intense anxiety occurs makes some professional musicians feel that "there's no way to prepare for or avoid it" (Mach, 1980, p. 50). The unpredictability and resulting perceptions of uncontrollability around stage fright increases the risk of performance anxiety developing in professional musicians.

Preparation

While most of this paper focuses on things that can render people vulnerable to anxiety, the remainder discusses how musicians combat performance anxiety, and the most common strategy used to protect against nervousness is preparation. Preparation appeared as a code name twenty-two times in the literature sample and was discussed by nineteen musicians. Vladimir Ashkenazy, Seymour Bernstein, John Browning, Misha Dichter, Youri Egorov, Janina Fialkowska, Rudolf Firkusny, Claude Frank, Gary Graffman, Percy Grainger, Myra Hess, Gilbert Kalish, Perry Knize, Radu Lupu, Mme. Olga Samaroff, André-Michel Schub, Abbey Simon, Ralph Votapek, and André Watts (Bernstein, 2002; Brower, 1969; Brower & Johnson, 2003; Goldberg, 1999; Graffman & Schonberg, 1981; Grindea, 2007; Knize, 2009; Mach, 1980, 1991; Marcus, 1979; Noyle, 2000) agree that preparing well for a performance is the best way to combat music performance anxiety.

In the sample literature, world-renowned musicians discuss preparation for performance in two ways: preparation of the music, and preparation of self. For preparation of music, musicians discussed this in terms of how to practice effectively when preparing for a performance. Careful practice decreases anxiety before a concert, and musicians such as Vladimir Ashkenazy (Mach, 1980) and John Browning (Mach, 1980) believe that practice "is the best defense I know against preconcert nervousness" (p. 23), and "the best insurance against memory failure" (p. 43). For

some musicians, such as Seymour Bernstein, the relationship between practice and anxiety is cyclical, where pre-concert anxiety motivates performers to do the "kind of practicing that enables you to survive a performance—in spite of your nervousness" (Bernstein, 2002, p. 3). Other musicians, such as Ralph Votapek, believe that "if you concentrate when you're practicing, chances are nothing will go wrong with memory (Noyle, 2000, p. 134). Generally, musicians consider the best advice for dealing with performance anxiety is "what your mother would tell you: be prepared" (Noyle, 2000, p. 36).

In addition to preparing the music, professional musicians must also prepare themselves before performance. To help enter the proper performance mindset, musicians develop pre-performance routines, which include psychological practice, becoming familiar with venues and instruments, and taking care of physical needs. An example of psychological preparation comes from Youri Egorov (Mach, 1991) who imagines the night of the concert one week before performance until his nerves increase. Once he feels sufficiently aroused, he repeatedly performs his piece while picturing an audience. This ritual allows him to experience his anxiety symptoms in a controlled environment, and while it doesn't eliminate nervousness, Egorov believes that "at least you've done something to combat the jitters and that will stand you in good stead on the night of the concert itself" (p. 48). Rudolf Firkusny's (Noyle, 2002) pre-concert routine includes visiting the venue because then "you know what it looks like backstage, what the feeling is as you walk out on stage, how far you have to go to the piano, what the look of the hall is" (p. 100). Familiarizing oneself with the performance space increases a musician's comfort, alleviating some performance anxiety. As for taking care of the physical self, musicians such as Johnathon Bliss (Benser, 2012) and Janina Fialkowska (Mach, 1991) stress the importance of proper rest and nutrition to protect against performance anxiety, especially when on tour.

Musicians who successfully combat performance anxiety know careful preparation of music, mind, and body increases the chances of a successful performance. John Browning (Noyle, 2000) summarizes this idea when stating, "I often have felt that practicing is really, maybe fifty percent necessary, and fifty percent insurance. You insure...so if you're not feeling up to snuff, you have so much backlog of preparation that it will carry you through automatically" (p. 29).

Focusing on the music

After examining the negative effects of anxiety experienced during performance, one might wonder why individuals continue to subject themselves to such discomfort on stage. The final theme emerging from the literature describes focusing on the music as a way of coping with performance anxiety. This code name appeared fourteen times in the sample literature and was discussed by thirteen different musicians. An important protector against anxiety for performers, Claudio Arrau, Seymour Bernstein, Alicia de Larrocha, Misha Dichter, Youri Egorov, Rudolf Firkusny, Leon Fleisher, Stephen Hough, Gilbert Kalish, Perry Knize, Josef Lhevinne, André-Michel Schub, & André Watts (Bernstein & Harvey, 2016; Brower, 1969; Goldberg, 1999; Knize, 2009; Mach, 1980, 1991; Noyle, 2000) describe how concentrating on their passion is enough to counteract the negative effects of anxiety.

In the sample literature, musicians describe how focusing or concentrating on the music at different times before or during a performance can help combat nervousness. For Misha Dichter (Noyle, 2000), he notes that when he feels nervous before a performance, then he's "not thinking

about what is essential, which is music" (p. 56). Claudio Arrau (Mach, 1980) also describes how "through heavy concentration, I overcome some of the apprehension" (p. 9). Refocusing on the pieces about to be performed helps these musicians calm their anxious thoughts. As well, musicians such as Gilbert Kalish, Perry Knize, and André Watts (Goldberg, 1999; Knize, 2009; Noyle, 2000) state that concentrating during a performance reduces anxiety while on stage. For Watts, concentrating on the task at hand allows him to "Enjoy the actual moment of music. … Focus on what you remember and how it could be beautiful if you put the chord down this way and listen very consciously at the same time and just play with that kind of focus" (Noyle, 2000, p. 152). Focusing on how the music sounds in the present moment can help some pianists reduce the amount of performance anxiety they feel in that same moment.

As well as concentrating before or during the actual performance, pianists also describe how focusing on the music can help alleviate performance anxiety related to specific fears. Leon Fleisher and Gilbert Kalish (Goldberg, 1999; Noyle, 2000) describe how focusing during preparation can help reduce worry on the night of a performance. Fleisher discusses the importance of concentrating on musical goals and intentions during practice. For him, preparing using this type of focus means that during the concert, "if you're aware that the phrase goes from here to here with this kind of intensity, that there's an overall kind of sonority that takes care of these bars that leads to there, one is too busy to be self-conscious. One is too busy to have nerves" (Noyle, 2000, p. 99). In addition to focusing during concert preparation, other pianists such as Rudolf Firkusny, Stephen Hough, and Josef Lhevinne (Brower, 1969; Mach, 1991; Noyle, 2000) discuss how concentration during performance can help alleviate specific fears relating to the audience and negative evaluations. Firkusny explains how his concentration allows him to "almost forget there is an audience. You know they are there, but the concentration is so great you don't feel something unpleasant is happening" (Noyle, 2000, p. 86). Similarly, Hough believes that "if we only care about the music, we won't think of being nervous, but if we care what people think of us, then we will be" (Mach, 1991, p. 137). Both pianists express how concentrating on the music during performance helps reduce anxiety created by the type of audience or fear of negative evaluation.

While focusing on the music does not relieve all symptoms of performance anxiety, it allows these thirteen musicians enough anxiety relief to continue doing what they love. After providing a detailed description of his struggles with performance anxiety, André-Michel Schub (Noyle, 2000) concludes by explaining, "But you always love the music. That's the ultimate thing.... You always have that" (p. 112). With this knowledge, most musicians successfully manage a professional career despite performance anxiety because concentrating on the beauty of the music helps them remember that "Fear will pass. Pain will pass... all things pass" (Mach, 1991, p. 96).

Conclusion

World-renowned professional musicians must cope with music performance anxiety throughout their careers. Despite differences between individual experiences, common themes exist in personal accounts of performance anxiety. Common factors increasing anxiety are fear of memory slips, types of audience, fear of negative evaluation, and unpredictability of anxiety, while preparation is the favored coping skill among professional musicians. The sixth theme, focusing on the music, also provides anxiety relief and helps explain how world-renowned pianists can have successful performance careers despite battling with the negative effects of performance anxiety.

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Erin Dempsey is a doctoral student in the School of Human Kinetics at the University of Ottawa. She has earned degrees in Piano Pedagogy (M.A.) from the University of Ottawa and Music (B.Mus) from Brock University. Specializing in music performance anxiety, Dempsey's research explores the relationships between self-efficacy and anxiety in young musicians.

Gilles Comeau, Professor at the School of Music of the University of Ottawa, coordinates the piano pedagogy and the music education sectors. Dr. Comeau has been the beneficiary of many research grants, including a large grant from the Canadian Foundation for Innovation to set up a research laboratory in piano pedagogy. As head of this infrastructure, he has established partnership with other research institutes and set up different multidisciplinary research groups that study various aspects of piano learning and piano teaching: music reading, motivation, physiological aspects of piano performance, piano-playing health injuries, and video-mediated learning. He has written various scholarly research papers and his research findings have received coverage in popular media outlets (television, radio, and newspapers). He has authored many books, including Piano Pedagogy: A Research and Information Guide; Comparing Dalcroze, Orff and Kodály; the five volume series Histoire illustrée de la musique pour les jeunes musiciens; and over 20 education kits to be used by music and arts teachers.

A Review of Studies on Piano Performers and Pedagogues

by Lynn Worcester, University of Northern Iowa

The review of studies presented here has been adapted from portions of the author's dissertation entitled, "Allison Nelson: Pianist, Teacher and Editor,"¹ submitted to the graduate college of the University of Oklahoma in June, 2015. This article considers two categories of graduate studies: 1) studies on the contributions of performing pianists; and 2) studies on the contributions of professionals in piano education and teaching.

Studies on the Contributions of Performing Pianists

Dissertations and theses that document the lives and contributions of significant concert pianists and teachers include Joanne Baker,² Lili Kraus,³ Gray Thomas Perry,⁴ Ruth Slenczynska,⁵ Gyorgy Sebok,⁶ Alan Brandes,⁷ Heinrich Neuhaus,⁸ Nadia Boulanger,⁹ Claudio Arrau,¹⁰ the piano duet team Dallas Weekley and Nancy Arganbright,¹¹ the piano duo team Arthur Gold and Robert Fizdale,¹² a dissertation on the piano teaching of four influential pianists in New York in the late twentieth century (Arkady Aronov, Martin Canin, Gilbert Kalish, and Herbert Stessin),¹³ a dissertation on the teachings of Josef Lhevinne and Abbey Whiteside,¹⁴ two additional dissertations on the teaching of Abby Whiteside,¹⁵ two dissertations on Teresa Carreno,¹⁶ two dissertations on Alexander Siloti.¹⁹

The organization of each of these dissertations is similar in that each dissertation provides an introduction, discusses similar studies and related literature, reveals the results of interviews and surveys from colleagues and students via mail, surveys the life of the research subject through a biographical approach, examines their professional activities as a performer through reviews and recordings, and examines their philosophies and pedagogy. All of these studies include an inperson interview with the research subject except the studies on Claudio Arrau, Heinrich Neuhaus, both of the dissertations on Teresa Carreno, both dissertations on Abby Whiteside, the dissertation comparing the pedagogy of Josef Lhevinne and Abbey Whiteside, the study on Olga Samaroff Stokowski,²⁰ and the study dedicated to duo-pianists Arthur Gold and Robert Fizdale. The careers of Gyorgy Sebok²¹ and Ruth Slenczynska²² are also notable: Gyorgy Sebok's training at the Liszt Academy in Hungary (with notable teachers Zoltan Kodaly, György Sándor and Leo Weiner) and Ruth Slenczynska's life as a child prodigy and career as a concert pianist, and eventual transition to artist-in-residence at Southern Illinois.

Dallas Weekley and Nancy Arganbright²³ have served in various professional roles—as concert artists, teachers, composers, authors of books and articles, and editors of the duet piano literature. Weekley and Arganbright composed and edited over fifty volumes of four-hand piano duets, including scholarly editions of standard literature and original compositions and published a graded set of pedagogical method books in the Kjos Piano Library. Weekley and Arganbright continue to give workshops for piano teachers and are master clinicians, encouraging piano teachers to make piano duets a consistent part of every student's curriculum.

Duo Pianists Arthur Gold (1917–1990) and Robert Fizdale (1920–1995) won international acclaim through their piano duo performances.²⁴ Gold and Fizdale premiered two works by John

Cage for two prepared pianos at New York's New School for Social Research and continued to commission two-piano works from several composers of the twentieth century. This piano duo team collected twenty-three compositions written specifically for them by leading composers including Francis Poulenc, Darius Milhaud, Ned Rorem, John Cage, and Paul Bowles. Gold and Fizdale contributed to the piano duo performance medium through their recordings and were the first duo-piano team to sign a contract with a major label, Columbia Records. Their popularity and recognition among influential composers of the twentieth century broadened the two-piano repertory, helping to establish the importance of piano duo teams in the United States.

Teresa Carreno was a child prodigy and made her New York debut at age seven after emigrating to the United States from Venezuela with her family. The study on Carreno discusses her extensive concert career in the United States and Europe and the impression she made on the music profession as a piano teacher of the young Edward MacDowell and through her forty piano pieces.²⁵ The study on Nadia Boulanger's contributions as a musician and teacher (documented through personal interviews between Boulanger and her researcher)²⁶ presented her ideas about musical elements including melody, harmony, rhythm, form, performance, composition, conducting, pedagogy, music history, and music criticism. This study provides an appendix of all original French texts of quotations on which the study is based, the text of a film about Nadia Boulanger's life by Humbert Balsan, a complete list of her compositions with dates and locations, and a list of private students known to have studied with her.

Two dissertations on Cecile Genhart²⁷ reveal the legacy of her master teaching in her students who have attained significant achievement in their careers and made contributions to the piano profession, including Stewart Gordon, Bradford Gowen, Ernesto Lejano, Anne Koscielny, Aiko Onishi, John Perry, Robert Silverman, Barry Snyder, and Mark Westcott. Cheung supplements Gordon's study of Cecil Genhart by focusing on her performances, her teaching, and its efficacy, as well as her relationship with her students.

Joanne Baker²⁸ and Alan Brandes²⁹ were master teachers as professors of music in Missouri and at Dana College, respectively. Forty hours of personal interviews were completed over several days between Baker and Hatch in addition to interviews with eight former students, questionnaires from former students, and questionnaires from colleagues drawn from local, regional, national, and international representation. The study dedicated to the contributions of Dr. Alan Brandes documents his achievements at Dana College in Blair, Nebraska, to his students, the institution, and the music profession. Dana College was founded in 1884, and in 2013, it was taken over by Midland University and closed its doors, although there are plans of re-opening in 2015.³⁰ Research on Dr. Alan Brandes demonstrates his extraordinary contributions as a solo pianist and educator.

Lili Kraus is one of the prominent performers and pedagogues of the twentieth century and served as artist-in-residence at Texas Christian University from 1967–1983.³¹ Roberson's document examines Kraus' performances, piano technique, life, and pedagogical strategies. Through her relationships with Eugene Ormandy and Rudolf Serkin, Lili Kraus was a transmitter of a musical tradition that descended from her study with Bartók, Steuermann, and Schnabel. Her contributions as a performer with a strong pedagogical upbringing translated into her collegiate teaching at Texas Christian University.

Olga Samaroff Stokowsky³² was the first American female to win a scholarship to the Paris Conservatoire, entering into the Conservatoire at the age of fourteen. Another strong female figure in the piano profession, Abby Whiteside has been the subject of two dissertations³³ and one dissertation dedicated to Abby Whiteside and Josef Lhevinne.³⁴ As an outstanding performer, Whiteside pioneered work in the study of the use of the body in producing a beautiful tone and sound at the piano and a freedom of technique.

Claudio Arrau³⁵ had a life-long performing career and was a world-class performer in the twentieth century. Although no interview was part of this study, his principles of piano playing are discussed through interviews with teachers and transcriptions of lessons given by them and by Arrau. The study examining Gray Thomas Perry's pedagogical heritage³⁶ includes his musical genealogy back to Isidor Philipp and the Leschetizky tradition of tone production acquired from Ethel Leginska and Franklin Cannon. These performers created a legacy of broad-based pedagogical methods.

Research on Alexander Siloti³⁷ reviews his life and contributions as a leading Russian pianist and pedagogue of the late nineteenth and early twentieth century. Tantikarn discusses Siloti's early musical training, influential teachers who affected his life, and his contributions to composers of his era in addition to Schott and Siloti's editorship of Liszt's *Piano Concert No. 2* and his techniques as a transcriber of Liszt's music. Pierce compares fourteen transcriptions for solo piano by J. S. Bach to transcriptions of the same pieces by contemporaries of Siloti, including Ferruccio Busoni, Ignaz Friedman, Wilhem Kempff, Camille Saint-Saëns, and Theodor Szánto.

The study dedicated to the piano pedagogy of four prominent piano teachers, Arkady Aronov, Martin Canin, Gilbert Kalish, and Herbert Stessin,³⁸ investigates the pedagogical ideas and backgrounds of four prominent pianists in New York City during the late twentieth century. Not only are their ideas and teaching styles documented and examined, but interviews were conducted with each master teacher and placed by the researcher in the history of piano pedagogy. Aronov, Canin, Kalish, and Stessin (and additionally Mieczyslaw Horszowski) all have roots to Theodor Leschetizky.³⁹ Goldberg's study found a commonality in the piano pedagogy of these four prominent teachers in New York, including the importance of listening, quality of sound, understanding the music, technically mastering the material, extreme attention to detail, and finding one's individual voice at the piano.

Studies on the Contributions of Professionals in Piano Education and Teaching

The rise in university study in piano education and teaching has resulted in biographical dissertations and theses that document the contributions of significant professionals in the field of piano education and teaching. The dissertations referenced below serve to illuminate the development of the field of piano pedagogy throughout the twentieth and twenty-first centuries; in addition, they further provide a means for surveying the methodologies and approaches to researching leading pedagogues.

Authors of pedagogical materials who serve as the basis of historical research in piano education and teaching include the following people: William Mason,⁴⁰ John Thompson,⁴¹ Boris Berlin,⁴² Willard A. Palmer,⁴³ Louise Wadley Bianchi,⁴⁴ Jon George,⁴⁵ Celia Mae Bryant,⁴⁶ Marguerite Miller,⁴⁷ Clarence A. Burg,⁴⁸ Marienne Uszler,⁴⁹ Jane Bastien,⁵⁰ James Lyke,⁵¹ Louise Goss,⁵² Marvin Blickenstaff,⁵³ Béla Bartók,⁵⁴ two dissertations dedicated to the contributions of Frances Clark,⁵⁵ Lynn Freeman Olson (the subject of two dissertations⁵⁶ and a thesis⁵⁷) and Maurice Hinson⁵⁸ (with three dissertations dedicated to his many contributions). All of these musicians contributed authorships of musical prose or editorial works, or both.

Each of these dissertations is similar in organization in that they each present an introduction, explain the need and purpose for the study, review similar studies in the field of piano pedagogy, assess the results of interviews and surveys from colleagues and students through in-person interviews, survey the life of the research subject through a biographical approach, and document the subject's professional activities as a pedagogue through their contributions at the university level and through their publications. An in-person interview with each music educator took place with his or her respective researcher with the exception of Béla Bartók,⁵⁹ William Mason,⁶⁰ John Thompson,⁶¹ Clarence A. Burg,⁶² and one of the dissertations that review Francis Clark's contribution to piano pedagogy.

Although the studies dedicated to Béla Bartók's⁶⁴ and Frances Clark's⁶⁵ contributions to piano pedagogy do not include interviews with either research subject, personal interviews with former students provide details of their philosophies and insight into their pedagogy. Huang interviewed two of Bartók's prominent students, György Sándor and Storm Bull. The pedagogues Hudak interviewed who were impacted by Clark include Louise Goss, Sam Holland, and Martha Hilley. Interviews with prominent students of these leading pedagogues, both Bartók and Clark, demonstrate the continual need for biographical research of professionals in piano education and teaching. The lineage of prominent piano pedagogues from the nineteenth and twentieth centuries continues to impact the field of music education and teaching into the twenty-first century.

Huang's document dedicated to Béla Bartók reviews Bartók's influences on piano pedagogy, gathers recollections of his former students Sandor and Bull through interviews, and reviews Bartók's performing style and composition. Huang reviews Bartók's edition of Bach's *Well-Tempered Clavier* for phrase markings, accents, dynamics, expression marks, and fingerings. This study evaluates the tremendous contributions Béla Bartók made primarily as a pedagogue and an editor.

The study dedicated to the life and contributions of William Mason⁶⁶ documents his contributions to the field of piano and piano pedagogy in the United States in the second half of the nineteenth century. An in-person interview of Mason by Graber was not possible. (Mason was born in 1829.) Therefore, three special collections of Mason's memorabilia were used to review Mason's life: The William Mason Papers, the William Mason Collection of Autograph Letters, and the William Mason Collection of Musical Autographs. Mason's contributions as an American performer, pedagogue, and composer are documented to preserve his legacy and influence during the nineteenth century.

John Thompson's contributions' to piano pedagogy and music education are reviewed through an evaluation of his philosophy toward teaching the elements of piano technique used by concert pianists for beginning, average-age children.⁶⁷ This study reveals Thompson's choice early in his life to dedicate his career to teaching and learning how to play the piano. *John Thompson's*

Modern Piano Course (1937) were best sellers among piano teaching materials during the 1930s, 1940s, and 1950s, and continue to be used into the twenty-first century. Thompson's philosophy that piano technique and artistry could be applied to the child by the use of miniature forms and interesting, original melodic pieces was key to his success. This study demonstrates that Thompson's compositions were some of the most influential piano instructional materials during the twentieth century, due in part to his reduction of melodies of many famous masterpieces to fit the ability of a small hand.

The study of Willard A. Palmer's contributions to the field of piano pedagogy provides a complete catalog of Palmer's publications, a listing of journal reviews of his publications, programs from concerts and recordings, research pages from the Masterwork Series and the criteria used to evaluate Palmer's methods books.⁶⁸ Palmer's innovative methods and carefully edited volumes of keyboard literature have placed him at the forefront of piano education in the United States.

The study of Clarence A. Burg's⁶⁹ career as dean and professor of piano in the School of Music at Oklahoma City University (1928–1982) reviews not only his university activities but also his contributions as a professional leader in the Oklahoma Music Teachers Association (as a founder and its first president) and the National Guild of Piano Teachers. While an in-person interview with Burg was not possible, interviews with Burg's relatives and archival materials provided biographical data for this study. Questionnaires returned by sixty-seven of his former piano and piano pedagogy students reveal Burg's piano teaching philosophy and approaches. Based on the data, the overwhelming majority of Burg's students were positively influenced by him in their playing and teaching, as well as in their lives beyond their lessons or classes.

Boris Berlin's career is documented through a study that researches his contributions as a piano teacher, pedagogical author, and composer.⁷⁰ In addition to his teaching in Canada at the Royal Conservatory of Music and at the University of Toronto, the study examines his publications of hundreds of teaching materials between 1930 and 1994, as well as his teaching philosophy. Berlin contributed to the pedagogy of young beginners in developing an approach that emphasized perceiving groups of notes and their direction using creative illustrations that visually reinforce musical patterns.

Jane Bastien⁷¹ contributed to the development of American piano methods for pre-school, average age, and older beginner studies through the Bastiens' method book series. Bastien not only authored a wealth of piano materials with her husband, James Bastien, but she is a beloved teacher to hundreds of students.

Celia Mae Bryant⁷² contributed to the field of piano pedagogy through her activities as a teacher, writer in the *American Music Teacher* and *Clavier*, clinician, adjudicator, and organizational leader in the Oklahoma Music Teachers Association. The contributions of Marguerite Miller⁷³ to piano pedagogy through her thirty-eight-year teaching career at Wichita State University, teacher of group piano, applied piano, and piano pedagogy, are examined in the study by Fast. Marienne Uszler⁷⁴ contributed to the field of piano pedagogy through her work as a professor at the University of Southern California, a leader in national organizations, and an editor and author of

pedagogical books, handbooks, and journals, helping to shape the field of piano pedagogy during the twentieth century.

Three dissertations dedicated to the many contributions of Maurice Hinson⁷⁵ review his life, his publications, and his teaching. Cherrix's research reviews primary sources of Hinson's entire published output and secondary sources on editorials and reviews of his published writings, recordings, pedagogical approaches, and editions. Lane documents Hinson's life, career, and contributions to the field of piano and music education. Her sources include a survey that gauges how regularly Hinson's publications were used by piano teachers across the United States in addition to their opinions about them. Brown's research included an in-person interview with Hinson. Brown's study examines Hinson's entire editorial output, although special attention is given to Hinson's collections of intermediate-level piano literature, and an entire chapter in this study is dedicated to Hinson's Chopin collections.

The varied contributions of James Lyke⁷⁶ are revealed through his forty years as an educator, author, administrator, composer, clinician, adjudicator, and performer. His contributions to the field of piano pedagogy are reflected in his co-founding of the National Conference on Keyboard Pedagogy, duties as professor at the University of Illinois, teaching materials, and national and international workshops presented.

Lynn Freeman Olson⁷⁷ co-authored three piano courses, *Music Pathways* (written with Marvin Blickenstaff and Louise Bianchi), *Piano for Pleasure* (co-authored with Martha Hilley), and *Piano for the Developing Musician* (co-authored with Martha Hilley). *Music Pathways* is written for average-age beginners; *Piano for the Developing Musician* is written for non-keyboard undergraduate music majors; and *Piano for Pleasure* is written for adult beginners. Betts discusses and evaluates these three piano courses in addition to supplementary materials Olson composed and edited. The 1994 study by Betts is the only study that incorporated an in-person interview with Lynn Freeman Olson into its research. This dissertation is modeled after the evaluation criteria developed by Schubert, who wrote on the life and work of Willard Palmer.⁷⁸ The evaluation criteria for all three of Olson's piano courses are based on reading, technique, rhythm, musical understanding, design and format, musical quality, and pedagogical principles.

The study dedicated the legacy of Marvin Blickenstaff documents his extensive career.⁷⁹ Blickenstaff taught piano to all ages for over fifty years, presented to teachers nationally and internationally, published writing on teaching and materials for students, and held professional positions at University of North Carolina at Chapel Hill (1969–78) and at Goshen College (1978–99). Beginning in 2000, Blickenstaff began service as the president of the Board of Trustees of the Frances Clark Center for Keyboard Pedagogy.

One of the most important contributions Louise Bianchi⁸⁰ has made to the music teaching profession is co-authorship of the piano course *Music Pathways*. Bianchi co-authored *Music Pathways* with two other prominent figures in the field of piano pedagogy, Marvin Blickenstaff and Lynn Freeman Olson. Holland's study divides the documented American pedagogues that model the life of Bianchi into three groups that are similar in organization to the present study: artist-teachers in the field of performance, teachers involved in group piano settings in colleges, and individuals who focused on pre-college pedagogy through their publications.

Jon George⁸¹ was a composer of many pieces for the elementary and intermediate piano student, including *Artistry at the Piano*, created in collaboration with his wife, Mary Gae George. Garvin's study provides a general survey of the music used in piano method books for historical context and investigates the learning theories current at that time to place them in an educational context. George's main contributions are as a co-author of *The Music Tree* with Frances Clark and Louise Goss, *Kaleidoscope Solos* and *Kaleidoscope Duets*, and *Artistry at the Piano*. This study evaluates the sequencing of musical material in *Artistry at the Piano* in great detail, exhibiting the importance of selecting appropriate-level repertoire for the piano student.

The two dissertations dedicated to the contributions of Frances Clark⁸² research her career as a teacher, author of pedagogical materials (*The Music Tree*), and as founder of the Frances Clark Center for Keyboard Pedagogy with long-time friend, Louise Goss. Kern's study on Clark surveys the history of selected piano methods and materials prior to 1940. An in-person interview between Clark and researcher Kern is an invaluable part this study; Hudak's study on Clark does not include an in-person interview.

Louise Goss⁸³ was a founding member of the Frances Clark Center for Keyboard Pedagogy and long-time friend of Frances Clark. The biographical dissertation on Goss focuses on her contributions to the field of piano pedagogy, documents her *Clavier* magazine column "Questions and Answers," her involvement in the development the New School for Music Study, and her role at the Frances Clark Center for Keyboard Pedagogy. This study also documents Goss's teaching philosophies and thoughts on the future of piano pedagogy.

Recommendations from these studies uniformly reflect the need for further research on performing pianists and on professionals in piano education and teaching. It is hoped that by presenting these studies in this format, other researchers will benefit from this consideration of the organization and methodology used by the researchers and writers that have preceded them.

¹ Lynn Worcester, "Allison Nelson: Pianist, Teacher and Editor," (D.M.A. diss., University of Oklahoma, 2015).

² David Glen Hatch, "An Examination of the Piano Teaching Skills of Master Teacher, Joanne Baker," (D.M.A. diss., University of Missouri–Kansas City, 1987).

³ Steven Henry Roberson, "Lili Kraus: the Person, the Performer, and the Teacher," (Ph.D. diss., University of Oklahoma, 1985).

⁴ Patricia Jean Trice, "Gray Thomas Perry: Piano Performer and Pedagogue," (Ph.D. diss., Florida State University, 1988).

⁵ Carol Shannon Hyde, "A Case Study of an Artist-in-Residence: Ruth Slenczynska, Concert Pianist," (Ed.D. diss., University of Illinois at Urbana–Champaign, 1988).

⁶ Cynthia Cortright, "Gyorgy Sebok: a Profile as Revealed Through Interview with the artist, His Colleagues, and His Students," (D.M.A. diss., University of Oklahoma, 1993).

⁷ Barbara Lynn Hamel, "Dr. Alan Brandes: A Study of the Contributions made to His Music Students, Dana College, and His Profession," (D.M.A. diss., University of Missouri–Columbia, 1999).

⁸ Galina I. Crothers, "Heinrich Neuhaus: Life, Philosophy and Pedagogy," (Ph.D. diss., Birmingham City University, United Kingdom, 2010).

⁹ Teresa Walters, "Nadia Boulanger, Musician and Teacher: Her Life, Concepts, and Influences. Volumes I and II)," (D.M.A. diss., Peabody Institute of the Johns Hopkins University, 1981).

¹⁰ Victoria von Arx, "The Teaching of Claudio Arrau and His Pupils: Piano Pedagogy as Cultural Work," (Ph.D. diss., City University of New York, 2006).

¹¹ Kimberly Driesbach, "Contributions of Dallas Weekley and Nancy Arganbright to Piano Duet Performance and Literature," (D.M.A. diss., University of Oklahoma, 2010).

¹² Kennith T. Freeman, "Duo-pianists Arthur Gold and Robert Fizdale and their Contribution to the Two-Piano Repertoire," (D.M.A. diss., The University of Memphis, 2009).

¹³ Diane L. Goldberg, "Piano Pedagogy in New York in the late Twentieth Century: Interviews with Four Master Teachers," (D.M.A. diss., University of New York, 1999).

¹⁴ Graciela Guadalupe Martinez, "Basic Principles of Beginning Piano Study: A Comparison of Methodic Approaches of Josef Lhevinne and Abby Whiteside," (Ph.D. diss., Michigan State University, 1990).

¹⁵ Patricia Ann Wood, "The Teaching of Abby Whiteside: Rhythm and Form in Piano Playing," (D.M.A. diss., Ohio State University, 1987); Carol Ann Barry, "Continuing Abby Whiteside's Legacy---The Research of Pianist Sophis Rosoff's Pedagogical Approach (Based on the Playing Principles Outlined in the Book 'On Piano Playing' by Abby Whiteside, with Practice and Performance Observations by Carol Ann Barry)," (D.M.A. diss., James Madison University, 2011).

¹⁶ Anne E. Albuquerque, "Teresa Carreno: Pianist, Teacher, and Composer," (D.M.A. diss., University of Cincinnati College-Conservatory of Music, 1988); Franco Gurman, "Teresa Carreno and Her Piano Music," (Ph.D. diss., University of Florida, 2006).

¹⁷ Stewart Lynell Gordon, "Cecile Staub Genhart: Her Biography and Her Concepts of Piano Playing," (D.M.A. diss., University of Rochester, 1965); Cheung, Mandarin Germain, "Pilgrimage of an Artist-Teacher: Cecile Staub Genhart as Remembered by Her Students." (D.M.A. diss., Arizona State University, 1999).

¹⁸ Geoffrey Eugene McGillen, "The Teaching and Artistic Legacy of Olga Samaroff Stokowski," (D.A. diss., Ball State University, 1988); Peter John Van Beck, "The Pedagogy of Olga Samaroff: A Consideration of Her Artistic Legacy," (D.M.A. diss., Rice University, 2005).

¹⁹ Noppawan Tantikarn, "A Biographical Overview of Pianist-Pedagogue Alexander Siloti and His Revision of Liszt's Piano Concerto No. 2.," (D.M.A. diss., University of Miami, 2013); Stephen Ross Pierce, "An Examination of Alexander Siloti's Printed Solo Piano Transcriptions of Works by J. S. Bach," (D.M.A. diss., University of Cincinnati, 2011).

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²¹ Cortright, "Gyorgy Sebok: a Profile."

²² Hyde, "A Case Study."

²³ Driesbach, "Contributions of Weekley and Arganbright."

²⁴ Freeman, "Duo-pianists."

²⁵ Albuquerque, "Teresa Carreno: Pianist."

²⁶ Walters, "Nadia Boulanger, Musician."

²⁷ Gordon, "Cecile Staub Genhart;" and Cheung, "Pilgrimage."

²⁸ Hatch, "An Examination."

²⁹ Hamel, "Dr. Alan Brandes."

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³¹ Roberson, "Lili Kraus."

³² McGillen, "Teaching of Stokowski."

³³ Wood, "Abby Whiteside: Rhythm;" and Barry, "Continuing Abby Whiteside's Legacy."

³⁴ Martinez, "Basic Principles."

³⁵ von Arx, "Teaching of Claudio Arrau."

³⁶ Trice, "Gray Thomas Perry."

³⁷ Pierce, "Siloti's Solo Piano Transcriptions;" and Tantikarn, "A Biographical Overview.

³⁸ Goldberg, "Piano Pedagogy in New York."

³⁹ Nelson, "Remembering Serkin."

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⁴² Laura Beauchamp, "Boris Berlin's Career and Contributions to Piano Pedagogy," (D.M.A. diss., University of Oklahoma, 1994).

⁴³ Kathleen Louise Schubert, "Willard A. Palmer's Contributions to Piano Pedagogy," (PhD. Diss., University of Oklahoma, 1992).

⁴⁴ Samuel Stinson Holland, "Louise Wadley Bianchi's Contributions to Piano Pedagogy," (Ph.D. diss., University of Oklahoma, 1996).

⁴⁵ Dianne Evans Garvin, "Jon George: The Composer and His Contributions to Piano Pedagogy," (D.M.A. diss., University of Miami, 1998).

⁴⁶ Carol Ann Baskins, "The Contributions of Celia Mae Bryant to Piano Pedagogy," (Ph.D. diss., University of Oklahoma, 1994).

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⁴⁹ Karen E. Beres, "Marienne Uszler's Contributions to Piano Pedagogy," (D.M.A. diss., University of Oklahoma, 2003).

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⁵⁹ Huang, "Bartók's Contributions."

⁶⁰ Graber, "Life and Works of William Mason."

⁶¹ Dibble, "John Sylvanus Thompson."

- ⁶² Owens, "Contributions of Clarence A. Burg."
- ⁶³ Hudak, "Portrait of Frances Oman Clark."
- 64 Huang, "Bartók's Contributions."
- 65 Hudak, "Portrait of Frances Oman Clark."
- ⁶⁶ Graber, "Life and Works of William Mason."
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- ⁶⁸ Schubert, "Willard A. Palmer's Contributions."
- ⁶⁹ Owens, "Contributions of Clarence A. Burg."
- ⁷⁰ Beauchamp, "Boris Berlin's Career."
- ⁷¹ Burns, "Contributions of Jane Bastien."
- ⁷² Baskins, "Contributions of Celia Mae Bryant."
- ⁷³ Fast, "Marguerite Miller's Contributions."
- ⁷⁴ Beres, "Marienne Uszler's Contributions."
- ⁷⁵ Brown, "Maurice Hinson's Pedagogical Collections;" Cherrix, "Maurice Hinson: An Annotated Bibliography;" and Lane, "Maurice Hinson: His Life and Contributions."
 - ⁷⁶ Choi, "Contributions of James Lyke."
- ⁷⁷ Viss, "Olson: His Philosophy;" Herbert, "Technical and Pedagogy Elements;" and Betts, "Olson's Contributions to Music Education."
 - ⁷⁸ Schubert, "Willard A. Palmer's Contributions."
 - ⁷⁹ Ernst, "Legacy of Blickenstaff."
 - ⁸⁰ Holland, "Bianchi's Contributions."
 - ⁸¹ Garvin, "Jon George."
 - ⁸² Kern, "Frances Clark;" and Hudak, "Portrait of Frances Oman Clark."
 - ⁸³ Jain, "Louise Goss."

Dr. Lynn Worcester serves as the Coordinator of University of Northern Iowa's Group Piano and Graduate Piano Pedagogy Programs. She received her Doctor of Musical Arts in Piano Performance and Pedagogy from the University of Oklahoma, and she holds a Master of Music in Piano Pedagogy and Performance from Baylor University, as well as a Master of Music and Bachelor of Music in Piano Performance from California State University, Fullerton. She has won numerous national awards and prizes and has performed with members of the Los Angeles Philharmonic Orchestra and in numerous international summer festivals, including the Atlantic Music Festival, in addition to solo and collaborative recitals throughout the United States. Active as both a collaborative performer and a teacher, she has performed with composers such as Frederick Rzeswki and continues to be invited to present workshops at local, state, and regional conferences, present master classes, has had articles accepted in the MTNA e-Journal and Clavier Companion, and adjudicates competitions and festivals. She previously held a faculty position at Shorter College, Georgia, where she taught piano, coordinated the group piano program, and served as Director of Piano Pedagogy. In Georgia, Lynn was active in the Georgia Music Teachers Association, where she presented workshops and also served as the Performance Collaborative Chair of GMTA. In Orange County, California, Lynn was an active member of the Music Teacher's Association of California and maintained an active private studio of all ages. Lynn continues to teach piano at Blue Lake Fine Arts Camp in Twin Lakes, Michigan, since joining the piano faculty in the summer of 2013. Lynn has studied piano and piano pedagogy with Jane Magrath, Barbara Fast, Krassimira Jordan, Lesley McAllister, Eduardo Delgado, Martha Baker-Jordan, and Robert Watson.