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A Comparison of Approaches to Pianoforte Technique in the Treatises of Lhevinne, Leimer, and Neuhaus

Louis S. Hehman

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A COMPARISON OF APPROACHES TO PIANOFORTE TECHNIQUE IN THE
TREATISES OF LHEVINNE, LEIMER, AND NEUHAUS

by

Louis S. Hehman

Bachelor of Arts
Bellarmine University, 2014

Master of Music
Butler University, 2017

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Accepted by:

Sara Ernst, Major Professor

Scott Price, Committee Member

Charles Fugo, Committee Member

Ana Dubnjakovic, Committee Member

Tracey L. Weldon, Vice Provost and Dean of the Graduate School

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DEDICATION

This dissertation is dedicated to Dr. Charles Fugo, under whom I had the great pleasure of studying for three years. When it comes to inspiring students, as well as exemplifying the long tradition of pianism as art, he may perhaps be the closest to thing to a Neuhaus that many of us will ever know!

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I also must thank several other mentors in my life who have indelibly shaped my music-making: Bert Ligon, Karen Thickstun, Kate Boyd, Meme Tunnell, Dave Clark, Todd Hildreth, Hafez Babashahi, and many more. I thank my dear friends from the University of South Carolina School of Music (too many to name here!) who did so much to make my years in Columbia three of the most enjoyable years of my life. I also gratefully acknowledge the community at Our Lady of the Lake in Chapin, especially Fr. Dennis Willey, Mr. David Fisher, and the adult choir, all of whom allowed me the privilege of serving as their music director for three years. In that position, I learned lessons far beyond what a simple classroom education can offer.

On a more personal level I must also thank Dr. Tim Glasscock, Music Department Chair at Bellarmine University, who encouraged me to complete this document (sometimes in spite of myself!) and graciously allowed me the time and space I needed to

write. I lovingly thank my parents, Luke and Laura Hehman, who paid for those early years of piano lessons and have supported me in innumerable ways since then. And finally, it is the deepest gratitude of all that I must give to my wife, Anna, without whom I undoubtedly could not have finished graduate school. Her sacrifices, humor, and love are all what have made this document, and career, possible.

To finish, I will never know Josef Lhevinne, Karl Leimer, or Heinrich Neuhaus personally. And yet, stepping into their world(s) over the past few years I certainly feel that I have, in some way, come to know them intimately. I thank these three new friends for their inspiration and ideas, which I now take great pleasure in passing on to my own students, who, to paraphrase Neuhaus, teach me at least as much as I teach them.

ABSTRACT

Throughout the history of piano playing as an art form, various performers, teachers, and theorists have written treatises as a means of conveying their thoughts on interpretation, education, and technique. As the Romantic tradition of pianism peaked in the early- to mid-20th century, three particular treatises were written that continue to have a major impact upon pianistic thought. These were *Basic Principles in Pianoforte Playing* by Josef Lhevinne, *Piano Technique* by Karl Leimer, and *The Art of Piano Playing* by Heinrich Neuhaus.

Each of these treatises was influential at the time of its publication, and each has remained in publication since. This is primarily due to the notability of each of the individual authors. In their own unique ways, Lhevinne, Leimer, and Neuhaus were leading pianistic figures of their time. While considerable study has been dedicated to these figures and their respective treatises, there has been relatively little cross-comparison, particularly regarding their thoughts on piano technique. This study is designed to address this paucity of research, and aims to serve as a guide for performers and teachers who wish to more deeply understand the technical thoughts of these three crucial figures.

This dissertation consists of six chapters and a bibliography. Chapter one provides an overview of the historical context of these treatises, and also contains the purpose and need for the study, limitations, related literature, and methodology. Chapter two focuses upon the respective authors' thoughts on the larger mechanisms of piano playing,

including the upper arm and forearm, as well as general considerations regarding posture. Chapter three addresses the wrist. Chapter four addresses the hands and fingers. Chapter five focuses upon the mental component of piano technique, including the more esoteric thoughts of the three authors. Chapter six offers deeper comparisons between the treatises, as well as a conclusion and suggestions for further research.

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CHAPTER ONE

INTRODUCTION

Perhaps more than any other musical instrument, the piano has served as the subject of a wide array of literature exploring aspects of its history, its repertoire, and its technique. In particular, starting in the mid-18th century, the genre of the treatise came to prominence, exemplified by C.P.E. Bach's (1714-1788) *Essay on the True Art of Keyboard Playing*.¹ While this work explored more keyboard instruments than just the pianoforte, which was in its early stages of development, it nonetheless had a lasting influence on future writing. In his *Essay*, Bach explored various aspects of keyboard technique and provided insight into the pedagogical methods of his famous father, Johann Sebastian (1685-1750). C.P.E. Bach's dual focus on both technique and pedagogy would serve as the archetype for future treatises on keyboard instruments, and Bach's *Essay* marked the beginning of a trend which resulted in the publication of many other treatises, including *School of Clavier Playing* by Daniel Gottlob Türk (1750-1813), *A Method for*

¹ Wong, Ki-tak Katherine. "The Changes of Foci in Three Important Clavier and Piano Pedagogical Works between the Mid-18th to Mid-19th Centuries." In *Die Sammlung Alter Musikinstrumente: Die Ersten 100 Jahre, 177–215*. Austria: Praesans Verlag, 2018.

the Piano Forte by William Mason (1829-1908), and *The Art of Touch and Musical Notation*, both by Tobias Matthay (1858-1945).²

Publications of piano treatises reached a zenith as the Romantic piano tradition peaked in the first half of the twentieth century.³ Alfred Cortot (1877-1962), a celebrated French pianist, published his *Rational Principles in Pianoforte Technique* during this period.⁴ In addition to Cortot's treatise, three particular writings from this era came to prominence and had a lasting impact upon the development of 20th century piano teaching and performance. In publication order, they are: Josef Lhevinne's *Basic Principles in Pianoforte Playing*, Karl Leimer's *Piano Technique*, written with assistance from his famous student, Walter Gieseking, and Heinrich Neuhaus's *The Art of Piano Playing*. Considered together, these three treatises are representative of the historical genre of the piano treatise as it had developed by the early to middle years of the 20th century. Considered individually, each of them continues to exert influence upon teachers and performers to the present day. A comparison of the historical treatises of Lhevinne, Leimer, and Neuhaus reveals interesting similarities in beliefs, as well as significant differences of opinion, regarding the individual components of a healthy pianoforte technique.

² Stela Slejanska-Stojanoska, "Racionalnitate Principi Na Pijanističkata Tehnika Na Alfred Korto i Nivnata Primena vo Makedonskata Pedagogija," *Muzika: Spisanie Za Muzička Kultura* 3, no. 5 (1999): 67.2

³ Slejanska-Stojanoska, 69.

⁴ Alfred Cortot, *Rational Principles of Pianoforte Technique*, 1st ed. (Paris: Salabert, 1930).

Purpose of the Study

The purpose of this study is to draw comparisons between the three historical treatises by Josef Lhevinne, Karl Leimer, and Heinrich Neuhaus. The study establishes how these three individual authors address the various bodily components—including the arm, wrist, and fingers—which, together, constitute a healthy piano technique. This document also contains additional considerations for the mental component of playing, which all of these authors consider to be of great importance to pianists. In comparing these treatises' contents pertaining to these topics, this document examines the insights of the authors. Both their respective similarities and differences are highlighted for piano teachers and performers.

Because each of the three treatises has already served as the subject of significant scholarly work, and, in some instances, they have been compared in dyads, it is the comparison of all three together which is the purpose of this study. As will be highlighted in the related literature section, each of these treatises has been referenced either singularly or comparatively by a wide array of academic articles, and has also been included as a point of discussion in a number of prior dissertations. While other piano and keyboard treatises also merit an intensive scholarly comparison, the three considered in this document are of particular interest for their individual influence, the similarity of their subject matter, and the chronological proximity of their creation, especially when the entire history of the piano treatise is considered.

The earliest of these treatises is the one by Josef Lhevinne (1874-1944), *Basic Principles in Pianoforte Playing*. First published in 1924, the treatise was republished by

Dover Publications in 1972 with a new forward by Lhevinne's wife and pianistic collaborator, Rosina Lhevinne (née Bessie, 1880-1976), a famed performer and teacher in her own right who outlived her husband by more than three decades.⁵ In the early part of the 20th century, the Russian-born Lhevinnes were both highly regarded both as pedagogues and, in the case of Josef in particular, concert artists. After emigrating to America in the aftermath of World War I, Josef's reputation and concertizing earned him a position as one of the ten founding faculty members of the Juilliard School.⁶ *Basic Principles in Pianoforte Playing* contains a relatively brief summary of his thoughts on teaching and playing, thoughts which were heavily influenced by his own mentor, Anton Rubinstein.⁷ Although his treatise is the shortest of the three considered here, the related literature section will show that it has had considerable impact upon pedagogical thought, and it continues to be referenced by teachers and researchers to this day.

The next treatise considered in this document is *Piano Technique*, generally credited to Walter Giesecking and Karl Leimer. Of all the figures considered in this document, Walter Giesecking (1895-1956) is today the one best remembered as a pianist *per se*. This is largely due to the extensive recordings he made in the 1930s through the 1950s before his death. These established him as one of the foremost interpreters of both Beethoven and especially Debussy.⁸ Any discussion of *Piano Technique*, which has traditionally been credited primarily to him, is complicated by two factors. Firstly, it

⁵ Robert Wallace, *A Century of Music Making* (Bloomington, IN: Indiana University Press, 1976).

⁶ Wallace, 188.

⁷ Josef Lhevinne, *Basic Principles of Pianoforte Playing*, Second (New York: Dover Publications, 1972).

⁸ Walter Giesecking and Karl Leimer, *Piano Technique* (New York: Dover Publications, 2014).

actually consists of two separate works, *The Shortest Way to Pianistic Perfection* (1932), and its sequel, *Rhythmics, Dynamics, Pedal and Other Problems of Piano Playing* (1938). It was not until 1972 that Dover published them in one volume. The other complication is the fact that Giesecking is not actually the primary author. Although the work as a whole is generally credited to both Giesecking and his teacher Karl Leimer (1858-1944), it is actually Leimer himself who wrote the majority of the work.⁹ Leimer was Giesecking's piano teacher between 1912 and 1917, and his theories had a deep impact on Giesecking's own musical thought, which is ostensibly captured in the treatise. However, only the first volume, *The Shortest Way to Pianistic Perfection*, contains any written contributions from Giesecking; the entirety of the second volume was written by Leimer. In spite of this, Giesecking's renown as a pianist traditionally resulted in his receiving primary credit for *Piano Technique*, and the historical convention has been to refer to the treatise as Giesecking, or jointly as Giesecking-Leimer. However, in recognition of the fact that the majority of the thoughts contained in *Piano Technique* belong to Leimer, this document generally refers to the treatise as his, except in references to other sources which cite *Piano Technique* as Giesecking-Leimer, wherein this document will follow that precedent.

The last of the treatises to be considered in this document is Heinrich Neuhaus's *The Art of Piano Playing*.¹⁰ Although not as well-known as a pianist in his own right, Neuhaus is one of the 20th century's most famous piano pedagogues, responsible for the

⁹ Leimer, 4. Giesecking openly admits that Leimer is responsible for the majority of the document in the preface.

¹⁰ Heinrich Neuhaus, *The Art of Piano Playing* (New York: Dover Publications, 2013).

training of a number of concert artists including Sviatoslav Richter and Emil Gilels.¹¹ *The Art of Piano Playing* is the chronologically latest of the three treatises, having been first published in 1958, as well as the longest. As the related literature section will show, this treatise in particular has inspired considerable attention and served as the subject of a number of scholarly studies.

Need for the Study

When considering the need for this study, the scarcity of related literature supports its necessity. Although each of these treatises has served an important function in a number of scholarly writings, there are few that directly compare them. The writings that do offer a comparison of them have a combination of either one of these treatises and others not considered here, such as the Cortot, or some combination of two of them with another treatise. Generally speaking, a direct comparison of these works is not found in the analysis literature.

This study addresses the manner in which each of these treatises discuss pianoforte technique. To each of these authors, this aspect of musicianship is indelibly linked to such items as interpretation, tone production, and repertoire. Because of this, thoughts regarding the technical aspects of playing are often found in more general discussions. This is particularly true in Leimer's writing, which frequently integrates multiple topics within a single paragraph. Nonetheless, the authors do have individual sections which focus primarily on the technical aspect of playing. In Neuhaus's work, for

¹¹ James Metheun-Campbell, "REVIEW: Nejgauz, Genrih Gustavovič. 'The Art of Piano Playing,'" *The Musical Times* 124, no. 1689 (November 1983): 683–85.

instance, the fourth chapter, which is the primary section about technique (aptly titled “On Technique”) comprises roughly one-third of the entire treatise when including the chapter’s addendum.¹² In recognition of the authors’ view of technique as essentially linked to other aspects of musical training, a separate chapter will provide an overview of their respective thoughts on concentration, mental acumen, practice techniques, and ear training, all of which will be summarized under the broad heading of “the mental component.”

Limitations of the Study

There are other treatises from this era which have also served as the subject of scholarly study, but are not included here due to major stylistic differences with these three. Particularly notable are the aforementioned Cortot treatise, as well as Erno Dohnányi’s *Essential Finger Exercises*.¹³ Although both of these allude to the philosophical underpinnings of their respective authors’ pedagogical approaches, they are primarily collections of exercises for the training of student musicians, putting them in a similar category as the Hanon or Czerny collections of exercises from the previous century. Because their primary function is as technical workbooks with exercises as opposed to prose descriptions, they are of a different category than the treatises being considered here.

This study also limits itself to items that directly impact the comparative analysis. While historical context and biographical information will be discussed in passing, these

¹² Neuhaus, *The Art of Piano Playing*.

¹³ Erno Dohnányi, *Essential Finger Exercises for Obtaining a Sure Piano Technique* (Milan: Suvini-Verboni, 1953).

contextual items will be of interest primarily as they pertain to the analysis of the treatises themselves. Existing biographies and historical analyses may be found in the related literature section, the bibliography, and the body of the text, where relevant.

Related Literature

The related literature can be divided into three categories: works which directly compare these or other piano treatises, works which reference these treatises but do not have them as a central focus, and works which focus primarily upon one of the treatises.

Works Which Directly Compare Piano Treatises

A number of resources have drawn comparisons between the three treatises considered here, as well as other historical piano treatises. The most directly similar to this document is Nikolas Lagoumitzīs's 2000 article, "The Evolution of Interpretive Aesthetics in the 20th Century Through Piano Pedagogy: Essay on the Dissemination of Knowledge of Musical Interpretation," which compares the technical and aesthetic approaches of Neuhaus, Leimer, and Alfred Cortot.¹⁴ Lagoumitzīs's article has a stylistic approach similar to this document; however, it is much briefer and can only be found in Greek; there is no readily available professional translation. Another resource which is methodologically similar, yet is wider in scope than the Lagoumitzīs, is Anita Lee-ling Chang's 1994 dissertation, "The Russian School of Advanced Piano Technique: Its

¹⁴Nikolas Lagoumitzīs, "The Evolution of Interpretive Aesthetics In The 20th Century Through Piano Teaching: Essay On The Transmission Of The Knowledge Of Music Performance," *Musicology: Periodical Exercises Music Theories and Practices?*, no. 14 (2000): 15–52.

History and Development from the 19th to 20th Century.” This resource compares approaches of a number of renowned pedagogues including Neuhaus and Lhevinne, as well as Theodor Leschetitzky, Vladimir Horowitz, and others. However, as the author’s focus is upon the Russian tradition, Leimer is not included in the survey.¹⁵

Ki-tak Katherine Wong’s 2018 journal article, “The Changes of Foci in Three Important Clavier and Piano Pedagogical Works between the Mid-18th to Mid-19th Centuries” is in a similar style as Lagoumitzīs’s and Chang’s studies, but focuses upon three earlier treatises: C.P.E. Bach’s *Versuch über die wahre Art das Clavier zu spielen* (1753), Daniel Gottlob Türk’s *Klavierschule oder Anweisung zum Klavierspielen für Lehrer und Lernende mit kritischen Anmerkungen* (1789) and Carl Czerny’s *Vollständige theoretisch-practische Pianoforte-Schule*, Op. 500 (1839).¹⁶ From a structural perspective, Wong’s document is the most similar to this document; however, her focus is more upon the authors’ reaction to technological innovations on keyboard instruments than their theories on pianoforte technique proper.

Works Which Reference These Treatises

Works which reference two or more of these authors, but do not have them as the central focus, include Sofia Lourenco’s 2010 article, “European Piano Schools: Russian, German and French Classical Piano Interpretation and Technique.” Lourenco briefly

¹⁵Anita Lee-ling Chang, “The Russian School of Advanced Piano Technique: Its History and Development from the 19th to 20th Century” (Austin, University of Texas, 1994).

¹⁶ Ki-tak Katherine Wong, “The Changes of Foci in Three Important Clavier and Piano Pedagogical Works between the Mid-18th to Mid-19th Centuries,” *Die Sammlung Alter Musikinstrumente: Die Ersten 100 Jahre*, 2018, 177–215.

explores the different approaches of national styles, and references Neuhaus and Giesecking-Leimer.¹⁷ Chen-Yi Yu's 2004 dissertation, "The Effect of Touch on Tone Production on a Grand Piano," explores a number of different authors' thoughts on tone as expressed through their treatises.¹⁸ Neuhaus, Lhevinne, and Giesecking-Leimer are all discussed, along with treatises by Seymour Bernstein, Tobias Matthay, and Adolph Kullak. Because the focus is limited to tone, and there are over a dozen authors discussed, Yu's document serves as more an overview than an in-depth examination.

Works Focusing Upon One Treatise or Author

Considering the three treatises individually, each has also served as the subject of a number of scholarly studies. Neuhaus's *The Art of Piano Playing*, in particular, has inspired a wide array of literature. Of special note are Russian-language sources which have become more widely translated and disseminated since the dissolution of the Soviet Union. One of the most notable of these was Tatyana Hludova's 1954 book, *About the Pedagogical Principles of H. Neuhaus*.¹⁹ Hludova was a student of Neuhaus, and this work merited a mention in Neuhaus's own *Art of Piano Playing*. Another important resource on Neuhaus from the Soviet era is Berta Kremenstein's *The Pedagogy of H.G. Neuhaus*, which serves both as a biography of Neuhaus and an overview of his

¹⁷ Sofia Lourenco, "European Piano Schools : Russian, German and French Classical Piano Interpretation and Technique," *Journal of Science and Technology of the Arts* 2, no. 1 (2010): 6–14.

¹⁸ Chen-Yi Yu, "The Effect of Touch on Tone Production on a Grand Piano" (Teachers College, Columbia University, 2004).

¹⁹ Tatyana Hludova, *About the Pedagogical Principles of H. Neuhaus* (Moscow, 1954).

methods.²⁰ Other earlier studies on Neuhaus and *Art of Piano Playing* include A. Vitsinky's *The Process of a Pianist Performing a Piece of Music*²¹ and D. Rabinovich's *Portraits of Pianists*.²²

More recent Russian authors have included Maria Razumovskaya, arguably the leading authority on Neuhaus. Razumovskaya has authored a number of writings both on his life and *The Art of Piano Playing*, including her 2014 dissertation, "Heinrich Neuhaus: Aesthetics and Philosophy of an Interpretation,"²³ a 2018 biography of Neuhaus entitled *Heinrich Neuhaus: A Life Beyond Music*,²⁴ and the current article on Neuhaus in the Grove Music Online dictionary.²⁵ Other more recent studies include Galina I. Crother's 2010 dissertation, "Heinrich Neuhaus: Life, Pedagogy and Philosophy"²⁶ and Ming Jin's 2014 article, "Piano Teaching in a Visual Age: Theoretical Thinking Based on Neuhaus Piano Teaching," the latter of which explores the viability of Neuhaus's approaches in the 21st century.²⁷

In comparison with the many scholarly works dedicated to Neuhaus, works dedicated to Leimer are far fewer in number. One scholarly article which does make use

²⁰Kremenstein, Berta. *The Pedagogy of H. G. Neuhaus*. Moscow, 1984.

²¹ Vitsinsky, A. *Process Raboty Pianista-Iсполnitelja Nad Muzykal'nym Proizvedeniem*. Moscow, 1950.

²² Rabinovich, D. *Portrety Pianistov*. Moscow, 1962.

²³ Maria Razumovskaya, "Heinrich Neuhaus: Aesthetics and Philosophy of an Interpretation" (London, Royal College of Music, 2014).

²⁴ Maria Razumovskaya, *Heinrich Neuhaus: A Life beyond Music*, Eastman Studies in Music (Rochester: University of Rochester Press, 2018).

²⁵ Maria Razumovskaya, "Neuhaus, Heinrich Felix Gustavovich," in *Grove Music Online* (Oxford University Press, January 20, 2016).

²⁶ G. Crothers, "Heinrich Neuhaus: Life, Pedagogy and Philosophy" (Birmingham City University, 2010).

²⁷ Ming Jin, "Piano Teaching in a Visual Age: Theoretical Thinking Based on Neuhaus Piano Teaching," *Piano Artistry*, June 2014, 35–39.

of the so-called “Giesecking-Leimer approach” was featured in *Psychomusicology* magazine in 2015: “‘Total Inner Memory’: Deliberate Usage of Multimodal Musical Imagery During Performance.”²⁸ In this study, the authors explore the effectiveness of musical imagery as espoused by the Leimer treatise. Regarding biographies, the most well-known biography of Giesecking is Bernard Gavoty’s 1955 book, *Walter Giesecking*.²⁹ This book was one in a series of short biographies by Gavoty, known as the *Great Artists Series*. As with other books in the series, it is quite concise: only 32 pages in length, over half of which consist of photographs of Giesecking. That this is the only biography of Giesecking that is not autobiographical³⁰ is indicative of the fact that there is a considerable lack of literature on Giesecking, except as regards *Piano Technique*’s inclusion as a part of various reviews on piano treatises (see above). There is an even greater scarcity regarding literature on Leimer, for whom there is no published biography, or even an article in the Oxford Dictionary of Music.

As with the Leimer treatise, the Lhevinne treatise has not had the same volume of literature dedicated to it as the Neuhaus. However, the figure of Josef Lhevinne has one distinct advantage lacking for Leimer: a definitive and comprehensive biography. This book, over 300 pages in length, is titled *A Century of Music-Making: The Lives of Josef and Rosina Lhevinne*.³¹ As the title suggests, it covers the lives of both members of the

²⁸ Kiersten Davidson-Kelly et al., “‘Total Inner Memory’: Deliberate Uses of Multimodal Musical Imagery During Performance Preparation,” *Psychomusicology* 25, no. 1 (2015): 83–92.

²⁹ Bernard Gavoty, *Walter Giesecking* (Geneva, Switzerland: Rene Kister, 1955).

³⁰ Giesecking did write his own memoir, *So Wurde Ich Pianist* (“*That’s How I Became a Pianist*.”). This German-language autobiography is out-of-print and extremely difficult to find.

³¹ Robert Wallace, *A Century of Music Making* (Bloomington, IN: Indiana University Press, 1976).

husband-wife piano duo. It was written by Robert Wallace, who is a leading scholar on the Lhevinnes; he also wrote an article on their teaching legacy for *Piano Quarterly*.³² One rather unique resource relating to Josef and Rosina Lhevinne is a series of two DVDs from the mid-2000s directed by UCLA piano faculty member Salome Ramras Arkatov. These videos, titled *The Legacy of Rosina Lhevinne*³³ and *Memories of John Browning: the Lhevinne Legacy Continues*,³⁴ were created by Arkatov as a tribute to her former teacher, Rosina Lhevinne, under whom she had studied in the 1960s. Both of these productions provide a unique insight into the approach that both Josef and Rosina Lhevinne took to teaching, as exemplified in *Basic Principles of Pianoforte Playing*.

Overview of the Document

This study comprises six chapters and a bibliography. The first chapter consists of an introduction which explores purpose and need for the study, as well as the limitations of the study and the related literature. Chapters two through five consist of an examination of the aspects of pianoforte technique explored by each of the authors. Each of these chapters is dedicated to a specific technical component addressed in the treatises, organized internally by the chronology of the treatises' publication dates. Chapter two focuses upon the forearm, upper arm, and general considerations relating to the larger mechanisms of the body. Chapter three focuses upon the wrist, and chapter four focuses

³² Robert Wallace, "The Lhevinnes' Teaching Legacy," *Piano Quarterly* 25, no. 85 (March 1974): 7–11.

³³ Salome Ramras Arkatov, *The Legacy of Rosina Lhevinne*, DVD (Arkatov Productions, 2003).

³⁴ Salome Ramras Arkatov, *Memories of John Browning: The Lhevinne Legacy Continues*, DVD (Arkatov Productions, 2006).

upon the fingers and the hand. Chapter five focuses upon more esoteric topics including concentration, mental acumen, and listening, all under the broad category of “the mental component.” Finally, chapter six consists of a summary and conclusions.

CHAPTER TWO

THE LARGER MECHANISMS

Introduction

This chapter will address each of the treatises' contents regarding the larger mechanisms of piano technique, focusing particularly upon the lower arm, or forearm, and the upper arm. However, "larger mechanisms" may also include the torso, back, shoulder, and elbow, depending on which elements are discussed by the respective authors. General posture at the instrument will also be considered. The chapter will begin with an overview of the historical context in which the authors were working. Then, each treatise will first be discussed individually, following the chronological order of publication: Lhevinne, then Leimer, then Neuhaus. The chapter will conclude with a brief comparison of their thoughts.

Today, healthy piano technique is generally understood to encompass all areas of the body, as opposed to the muscles of the hand and fingers only, which, as will be discussed in succeeding chapters, were the primary consideration of earlier authors. This transformation of focus took place over the course of many years and has recently been catalyzed in part due to the influence of holistic approaches, such as the Alexander Technique and the Taubman approach. This increased awareness of the entirety of the body can be seen fully in late-20th century and early-21st century piano treatises and publications. Seymour Fink, in his 1992 book *Mastering Piano Technique*, considered the

lower back muscles to be of fundamental importance and included an exercise for the lower back as the first of his six “Primary Movements.”³⁵ More recent pedagogues, including Fred Karpoff and Barbara Lister-Sink, have also advocated total body approaches through their own resources.³⁶ However, the emphasis on the entire body took effect relatively recently, and only gradually. This full-body approach was not considered by earlier authors. The earliest methods and treatises, such as those by Clementi and Czerny, placed greater emphasis on the more localized movements of the hand and, in particular, the fingers.³⁷ Emphasis on the fingers was the dominant theory of proper pianoforte technique for much of the 19th century, exemplified by a group of German pedagogues referred to as “the finger school” by author Reginald Gerig, in his landmark book *Famous Pianists and Their Technique*.³⁸

Nonetheless, while this focus on smaller mechanisms dominated for much of the history of keyboard technique, there co-existed competing schools of thought which would develop into the holistic approaches which dominate today. This transition is attested to both historians and technicians.³⁹ In her book *Playing the Piano Naturally*, author Vicki King identifies this transition as a natural reaction to changes in both the

³⁵ Seymour Fink, *Mastering Piano Technique: A Guide for Students, Teachers, and Performers* (Portland, OR: Amadeus Press, 1992): 24.

³⁶ Fred Karpoff, “Entrada Piano,” Entrada Piano, accessed February 26, 2021, entradapiano.com; Barbara Lister-Sink, “Lister-Sink Institute,” Lister-Sink Institute, accessed February 27, 2021, lister-sinkinstitute.org.

³⁷ Jeongsun Lim, “Attitudes and Thoughts on Tone Quality in Historic Piano Teaching Treatises” (University of South Carolina, 2018), 49.

³⁸ Reginald Gerig, *Famous Pianists and Their Technique*, 2nd ed. (Bloomington, IN: Indiana University Press, 2007).

³⁹ The Grove Online Dictionary of Music contains an extensive discussion of the development of both the physical instrument and its correlation to technical development within the lengthy “Pianoforte” article. Edwin M. Ripin et al., *Pianoforte* (Oxford University Press, 2001).

physical instrument and aesthetic preferences which took place during the Romantic era.⁴⁰ Gerig, in *Famous Pianists and Their Technique*, sees connections even farther back in time, suggesting that Beethoven himself was the forerunner of schools of thoughts which opposed the “finger school.”⁴¹ At the end of his chapter on Beethoven, Gerig eloquently sums up the changes in the physical instrument that occurred due to Beethoven’s influence:

How unfortunate that Beethoven, really the first of the great romantic period pianists, could not fully benefit from the improvements to the pianoforte already taking place during the closing years of his life and during those immediately following. It was the dynamic pianism of Beethoven and of the school which descended from him through Czerny to Liszt that helped to supply the impetus for the creation of bigger and better instruments during the nineteenth century.⁴²

Gerig then outlines the ways in which double escapement, the cast iron frame, and heavier strings influenced not only the construction of the instrument, but also the broadening of technical thought. In the midst of all these changes, several particularly prescient authors began the gradual transformation from finger emphasis to a more comprehensive understanding of piano technique. Two specific teacher-theorists had an especially long-reaching influence: the American William Mason (1829-1908), and German Ludwig Deppe (1828-1890).⁴³ Deppe, in particular, revolutionized contemporaneous views on technique through his holistic teaching approach. Deppe was partly inspired by the performances of the renowned Russian pianist, Anton Rubinstein (1829-1894). The connection between Deppe and Rubinstein is significant, as

⁴⁰ Vicki King, *Playing the Piano Naturally* (Natchitoches, LA: Conners Publications, 1999): 27.

⁴¹ Gerig, Chapter 6.

⁴² Gerig, 100.

⁴³ Gerig, chapter 12. This entire chapter centers largely on the figures of Mason and Deppe.

Rubinstein's shadow over the Russian musical tradition was such that an entire generation of pianists and teachers would view Rubinstein as an almost mythic figure; both Heinrich Neuhaus and Josef Lhevinne speak frequently of their deep respect for him.

The transformative influence of Mason, Deppe, Rubinstein, and others served as a backdrop for the treatises considered in this document. *Basic Principles in Pianoforte Playing*, *Piano Technique*, and *The Art of Piano Playing* were each written as a paradigm shift regarding technique was taking place. Hence, while each treatise still retains the influence of earlier authors and theoreticians, they also reflect a more modern understanding of piano technique. Each author offers some considerations regarding larger bodily mechanisms, but not to the extent of more recent pedagogues such as the aforementioned Fink, Karpoff, or Lister-Sink. Nonetheless, all three treatises do contain discussions of the largest mechanisms which influence piano technique, most especially the upper arm and forearm.

Lhevinne

Lhevinne says relatively little about the larger mechanisms of the body when compared to his more numerous discussions regarding the wrist, or the fingers and hand. Most of his thoughts regarding the lower arm, upper arm, and other larger mechanisms are found in Chapter IV of *Basic Principles*, which begins with a section titled "Acquiring Delicacy and Power."⁴⁴ Lhevinne, somewhat paradoxically, considers the

⁴⁴ As most of the Lhevinne treatise was compiled from articles he wrote over the course of several years for *The Etude* magazine, the chapters lack single titles, although they are organized according to similarity of topics.

upper arm to be the source of both delicacy and power.⁴⁵ These two very different aspects of piano playing can be achieved, according to him, through the relaxation of the arm. In his opinion, it was necessary that: “The upper arm and the forearm must feel so light that the player has the impression that they are floating in the air.”⁴⁶ This, it is implied, can allow a pianist to be either as delicate or as strong as desired.

However, Lhevinne also cautions against going too far. A pianist must be wary of over-relaxation of the arm: “One may say relax the arm; but if the arm is completely relaxed it will do nothing but flop limply at the side.”⁴⁷ The player must achieve balance between the two extremes: “On the other hand, it can be held in position over the keys with entire absence of nervous tension or stiffening, with the ‘floating in the air’ feeling that makes for the first principle of delicacy.”⁴⁸ Hence, according to Lhevinne, by committing to physical relaxation of the arms, a pianist may achieve either power or delicacy, depending what the musical context necessitates.

Lhevinne’s own commitment to physical relaxation went beyond his writing and was notable in his concertizing. As a performer, Lhevinne’s enormous dynamic range contrasted with his placid demeanor,⁴⁹ earning him the reputation as an exemplar of the Russian school of piano playing. Adherents to this approach were renowned for the powerful sonorities which they were able to draw from the instrument,⁵⁰ and by historical

⁴⁵ Lhevinne, *Basic Principles of Pianoforte Playing*, 25.

⁴⁶ Lhevinne., 26.

⁴⁷ Lhevinne, 26.

⁴⁸ Lhevinne, 26.

⁴⁹ Wallace, *A Century of Music Making*, 247. Lhevinne’s tranquility and dreaminess at the piano is noted several times throughout the text, and contrasted with vivid descriptions of his powerful playing, for instance, on page 161, where Lhevinne was described in a review as “primitive force itself.”

⁵⁰ Wallace, 247.

accounts Lhevinne was the equal of any in this regard.⁵¹ The source of his powerful playing, according to Lhevinne himself, came from the proper usage of the upper arm in coordination with the rest of the body. Without this coordination, a pianist will misuse the power in his playing and create harsh sounds at the instrument: “Of course strength, real physical strength, is required to play many of the great masterpieces demanding a powerful tone; but there is a way of administering this strength to the piano so that they player economizes his force.”⁵² Lhevinne’s own proper “administering of strength” in his playing was achieved through the coordination of his arms with his entire body.

To exemplify this point, Lhevinne offers in *Basic Principles* an example of an unnamed “famous pianist who has always inclined to the immovable torso or body in playing,” and contrasts this pianist with a portrait of Anton Rubinstein, who Lhevinne references continually throughout the text and was idolized by Lhevinne and other Russian musicians of that generation.⁵³ The “portrait” of Rubinstein is both figurative and literal; Lhevinne verbally describes Rubinstein’s bodily approach to the instrument, and also includes a sketch which was made of Rubinstein during his lifetime. In the verbal description of the sketch, Lhevinne addressing Rubinstein’s posture, pointing out that “instead of sitting bolt upright, as the pictures in most instruction books would have pupils do, he is inclined decidedly toward the keyboard. In all his forte passages he

⁵¹ Wallace, 173: “His technique was unsurpassed (as his colleagues [Josef] Hofmann and [Sergei] Rachmaninoff freely admitted). So were his tone and his range of dynamics.”

⁵² Lhevinne, *Basic Principles of Pianoforte Playing*, 29.

⁵³ Wallace, *A Century of Music Making*. Wallace spends a considerable portion of the first several chapters of his biography of Lhevinne describing the reverence in which Lhevinne’s generation of Russian musicians held Rubinstein.

employed the weight of his body and shoulders.”⁵⁴ Lhevinne describes the aural power that Rubinstein was able to achieve with this approach: “when playing a concerto, Rubinstein could be heard over the entire orchestra playing fortissimo. The piano seemed to peal out gloriously as the king of the entire orchestra; but there was never any suggestion of noise, no disagreeable pounding.”⁵⁵ In sum, Lhevinne considers the larger mechanisms, as well as the posture of the pianist, to have deep implications for the sound that the pianist is able to draw from the instrument.

Lhevinne has less to say regarding the larger mechanisms of the body than he does the wrist or the fingers, as will be discussed later in this document. Nonetheless, he does suggest that a coordination of the upper arm and forearm with the body allows for the pianist to be either delicate “as Cluny lace”⁵⁶ or powerful when necessary. The figure of Anton Rubinstein is, to Lhevinne, the perfect embodiment of this ideal.

Leimer

As noted in the introduction, Leimer’s approach to technical discussion is heavily integrated into the body of the text. This is reflective of Leimer’s overall approach to training students: instead of focusing on aspects of pianism such as technique, visualization, and memorization independently, they are generally discussed in relation to one another, particularly through the lens of teaching repertoire.⁵⁷ One of the hallmarks

⁵⁴ Lhevinne, 29.

⁵⁵ Lhevinne, 31.

⁵⁶ Lhevinne., 25.

⁵⁷ For instance, in the first section of Chapter II, “The Student Begins Work,” Leimer discusses his approach to teaching an etude from Lebert and Stark’s *Piano School*. Technique, artistry, memorization, and visualization are all discussed in an integrated manner.

of *Piano Technique* is the author's emphasis on intense focus and concentration, especially regarding audiation, or "training of the ear," and visualization, which is described as "silent reading."⁵⁸ While this interconnection of ideas can make Leimer's specific theories on technique difficult to discern, Leimer still does have strong opinions on piano technique.

In considering the larger body mechanisms, Leimer in *Piano Technique* insists that these mechanisms are of such great importance that they must be introduced to students from the beginning of study. For instance, relaxation of the arm is so essential that it is made to be a component of a student's very first lesson: "The first thing the pupil must learn is to relax the arm muscles, as is the case when we walk."⁵⁹ Healthy posture for the back, shoulders, and arms is also emphasized: "The player should sit well forward in the chair, without a support for the back. The upper part of the body should incline slightly forward; the upper arm, bent forward, should hang loosely from the shoulder joint. The seat should be high enough to allow the lifted lower arm to be on a level with the keyboard."⁶⁰ This is all in the service of eliminating tension, or as, Leimer states it, "the elimination of all unnecessary movements."⁶¹ Leimer's protégé Walter Giesecking was considered remarkable in his ability to control his posture and thus eliminate tension. Despite his large stature, he was able to create delicate and lush sounds through his implementation of Leimer's technical approach.⁶²

⁵⁸ Leimer, *Piano Technique*, 11.

⁵⁹ Leimer, 13.

⁶⁰ Leimer, 13.

⁶¹ Leimer, 13.

⁶² Bernard Gavoty, *Walter Giesecking*, trans. Peter Price (Geneva, Switzerland: Rene Kister, 1955).

As an example as to how a student may be encouraged to eliminate tension in the body, Leimer provides a case study through an etude by Lebert and Stark.⁶³ The main focus of this etude discussion is upon visualization; however, in keeping with the highly integrated nature of the text, technical considerations are also addressed:

As a first example a very easy piece has been naturally chosen to show in how far playing from memory can be acquired by visualizing. Our exercise [the Lebert and Stark etude] is very appropriate, as it contains a number of important technical problems, which will now be discussed... The first problem to be mentioned is the touch with the combined upper and lower arm; which, strange to say, is not generally understood.⁶⁴

It must be noted here that Leimer's usage of the word "touch," which is recurrent throughout the text, has a different, and somewhat more ambiguous, connotation than the modern pianistic use of the term. The lack of clarity from this term comes partly from the translation. The original German word used by Leimer is "Anschlag," which correlates more closely as a combination of the English words "attack" and "connection." From this, Leimer derives compound words such as "Anschlagsmöglichkeiten" ("connectivity possibilities") or "Anschlagsarten" ("connectivity types") to describe the range of mechanical combinations available within the pianist's arm. Therefore, the English word "touch" used throughout the text may refer to any mechanical impetus which comes from any singular component or groups of components of the playing mechanism.

With this in mind, Leimer's discussion of the "touch with the combined upper and lower arm" would refer to the mechanical coordination of the entire arm as an integrated playing mechanism, including the position of the fingers and hand:

⁶³ Sigmund Lebert and Ludwig Stark, whose *Grosse theoretisch-praktische Klavierschule* was in common use in the late 19th and early 20th century.

⁶⁴ Leimer, 18-19.

In our exercise the fingers one (thumb) and five... must be kept motionless, without strain or contraction, and a pressing through of the knuckle joints must be avoided. The position of the fingers should be the same as when, in the act of walking, the arm hangs loosely down from the shoulder joint. The wrist and the lower arm must be brought into position on a level with the keyboard, without strain or exertion. The elbow joint must remain passive, the combined upper and lower arm must be raised from the shoulder only, allowing the first (thumb) and fifth fingers to be lifted about two inches above the keyboard. The hand, which at the same time must be kept under muscular control, is now allowed to drop on the keys, which should be pressed down until 'we feel ground' as Rubinstein is supposed to have said. The arm must, as it were, rest on the keys.⁶⁵

Leimer's thinking in this excerpt is indebted to the transitory figures of the late 19th-century, several of whom were mentioned at the start of this document's chapter. The influence of Anton Rubinstein is made explicit in the last two sentences of the prior excerpt, although Leimer's views are not as hagiographic as his Russian counterparts, Lhevinne and Neuhaus. Ludwig Deppe is also mentioned in the following paragraph: "The above described touch ["Anschlag"] of the 'free fall' (as taught by Deppe) is of the utmost importance." The influence of these forward-thinking theoreticians belies another important aspect of the treatise which the above excerpt also reveals: the extent to which Leimer conceives the arm as being a part of a larger whole. Any discussion of the upper or lower arm must necessarily include consideration of the other parts of the playing mechanism, including the wrist, hand, and fingers, as well. Because of this, *Piano Technique* rarely contains descriptions of the individual mechanisms of proper technique as ends unto themselves; they are generally considered as part of the larger whole.

After referencing Deppe, Leimer emphasizes that the combined upper and lower arm is in the service of achieving control: "it can be carried out with much greater ease and accuracy, with the combined upper and lower arm, than as if emanating only from

⁶⁵ Leimer, 19.

the elbow joint or from the wrist.”⁶⁶ Although power can come from other parts of the arm (i.e., the elbow and wrist), the correct utilization of the combined upper and lower arm is what will give the pianist true control. This utilization is sometimes referred to as a “rolling” (in German, “Rollung”) of the arm,⁶⁷ a word which Leimer shares with a contemporaneous German pedagogue and theorist, Rudolph Maria Breithaupt (1873-1945).⁶⁸ Leimer also uses this word to describe certain impetuses from the shoulder or the hand, as well. He specifically mentions the rolling from the shoulder joint as equally suited for both ends of dynamic extremes, fortissimo and pianissimo.⁶⁹ In the second volume contained in *Piano Technique, Rhythmics, Dynamics, Pedal, and Other Problems of Piano Playing*, Leimer expounds upon this idea, claiming that fortissimos are best achieved from a thrust of the arm, or, in what he calls the “vernacular,” to “play straight from the shoulder.”⁷⁰

The second volume contained within *Piano Technique* also contains a chapter titled “Variety of Touch”⁷¹ in the English edition, though the original German “Die Anschlagsarten” translates more closely to “Types [or, more academically, “Species”] of Touch.” Within this context, Leimer delineates what he considers to be the possible combinations of touch. He considers several possibilities, many of which will be considered in later chapters of this document. For this section on larger mechanisms, two particular types of touch must be mentioned. The first is the “free fall,” which Leimer

⁶⁶ Leimer, 19.

⁶⁷ Leimer, 36.

⁶⁸ Gerig, 347. Gerig notes that “Rollung” does not have a precise English equivalent.

⁶⁹ Leimer, 36.

⁷⁰ Leimer, 105.

⁷¹ Leimer, 106.

alluded to in the first volume in his reference to Deppe. According to Leimer, it can incorporate the entire arm, but it can also be utilized by each of the constituent components of the mechanism.⁷² The free fall which makes use of the entire arm is the one which allows for the most strength: “Naturally, the greatest strength is attained through the fall of the whole arm.”⁷³ Softer dynamics may be achieved through the usage of the free fall in correspondingly smaller components of the mechanism, such as the hand or the fingers.

The other Anschlag which is of relevance here is the “Roll,” of which Leimer identifies two types.⁷⁴ The first emanates from the shoulder joint, which he discussed in the previous volume as ideal for dynamic extremes. The second emanates from the elbow joint and is what Tobias Matthay identified as forearm rotation.⁷⁵ Matthay (1858-1945), as an important transitory theoretician, falls into the same category as Rubinstein, Mason, and Deppe. Although Leimer does not mention Matthay explicitly as he does Rubinstein or Deppe, he utilizes the terms “pronation” and “supination” to describe the motions of the forearm. This terminology was largely popularized by Matthay⁷⁶ and is still a staple of technical discussion to this day.⁷⁷ For Leimer, forearm rotation (or the “roll” of the forearm) is particularly useful for tremolos, and, in certain very specific circumstances, for trills.⁷⁸

⁷² Leimer, 107.

⁷³ Leimer, 107.

⁷⁴ Leimer, 108.

⁷⁵ Tobias Matthay, *The Visible and Invisible in Pianoforte Technique* (London: Oxford University Press, 1932). Chapter VI is explicitly focused on forearm rotation, but the entire work (and, indeed, Matthay’s entire oeuvre) heavily discusses this topic.

⁷⁶ Gerig, 369-399.

⁷⁷ See Fink, 18.

⁷⁸ Leimer, 109.

In summary, Leimer goes into significant detail regarding his thoughts on technique of larger mechanisms. He considers these mechanisms, including posture, to be of such great importance that they must be discussed from the beginning of study. Building on the ideas of prior theorists, Leimer readily embraces the role of the arm and shoulder, and also details the ways in which they may be combined in different touches to achieve a variety of desired results.

Neuhaus

Neuhaus's thoughts on the larger bodily mechanisms can be found in the fourth chapter of *The Art of Piano Playing*, aptly titled "On Technique." Like Leimer, Neuhaus takes an integrative approach to technique,⁷⁹ believing each component of the human body to be vital for proper technique: "it is essential to use all the anatomical possibilities of movement with which man has been endowed, beginning with the hardly perceptible movement of the last joint of a finger, the whole finger, the hand, the forearm, arm and shoulder and even the back, in fact the whole of the upper part of the body, i.e. beginning with one point of support—the fingertips on the keyboard, and ending with another point of support on the chair."⁸⁰ This continual connectedness of the finger to the shoulder causes the arm to resemble a hanging bridge,⁸¹ although Neuhaus is not clear as to whether this is intended to be a literal physical resemblance or merely a metaphorical one. Summarizing the range of options that fully developed pianists should have at their

⁷⁹ Neuhaus, *The Art of Piano Playing*, 67: "All the phenomena grouped under the heading 'piano playing' are indissolubly linked with each other."

⁸⁰ Neuhaus, *The Art of Piano Playing*, 83.

⁸¹ Neuhaus, *The Art of Piano Playing*, 100.

disposal, Neuhaus provides a humorous metaphor, one of many which are found throughout this generally good-humored treatise: “One who is not mature either brings out his heavy artillery to shoot sparrows or uses a toy pistol against a battery of guns.”⁸²

Because the piano is itself a type of machine, Neuhaus believes that each one of these constituent components of the bodily playing mechanism must correspondingly conform to the mechanisms of the instrument. He uses semi-scientific language to analyze how this must be done:

The piano is a mechanism... and man’s work at the piano is to a certain extent a mechanism, if only because he has to make his body conform to the mechanism. When producing a sound on the piano the energy of the hand (of the finger, forearm, the whole arm, etc.) is transformed into the energy of the sound. The energy of the blow which the key receives is determined by the force— F —which we apply to the hand and the height— h —to which the hand is raised before being lowered on to the key. The speed of the hand at the moment when it strikes the key (v) varies depending on the value of F and h . It is precisely this figure (v) and the mass (m) of the body (finger, hand, arm, etc.) striking the key that determines the energy which acts upon the key.⁸³

This quasi-scientific language is recurrent in Neuhaus. He returns to the terminology of this “pseudo-physics,” such as “ F ” for force or “ m ” for mass, throughout *The Art of Piano Playing*. In order to cultivate awareness of all the possibilities which “ m ” can create for “ F ,” Neuhaus advocates looseness in the arm,⁸⁴ and expresses dismay at the inability of conservatory-level pianists to demonstrate the feeling of “dead weight” that is necessary to comprehend what true relaxation is: “They just could not manage to

⁸² Neuhaus, 83.

⁸³ Neuhaus, 85.

⁸⁴ Neuhaus, *The Art of Piano Playing*, 91. “And so the slogan: playing should be intense, strong, loud, deep and precise, is right. And in working this way the following rules should be observed: make sure that the hand and arm, from the wrist to the shoulder, are completely relaxed, that there is no contraction, no ‘freezing’ or stiffening anywhere, that none of the potential flexibility is lost, and at the same time remain perfectly still, making only those movements which are absolutely essential.”

disconnect completely the muscles of the arm which was to be the ‘dead body.’ It would come down half way but did not drop...”⁸⁵ To Neuhaus, this situation is unacceptable, as the pianist must have knowledge of both complete rest and maximum effort, which he compares to the mastery of a professional dancer.⁸⁶ Awareness and knowledge, for Neuhaus, are essential. Pianists must be both be aware of the terms “weight,” “load,” “pressure,” and “swing,” and know how to use them in a practical context.⁸⁷ Neuhaus makes no mention of influence from the Leimer treatise, but it is notable that several of these terms are common to both authors.

Despite the thoroughness of his discussion, and the “scientific” language in which he frames it, Neuhaus cautions against over-analyzing the movements of the arm. He summarizes his caution thusly, again utilizing his characteristic humor: “I must state quite frankly that if I manage to achieve what I had in mind, if I can embody my ‘idea’ in my performance, it is a matter of utter indifference to me to know how my elbow behaved at that time, what my good friends the supinators and pronators are doing or whether my pancreas has a part in my work or not.”⁸⁸ As mentioned previously, the terms “supinators and pronators” reference Matthey’s concept of forearm rotation, which Neuhaus takes a strong stance against: “the knowledge arrived from studying pronation and supination... is of no earthly help for the art of pianoforte playing and, what is more, is to be found almost always among those who lack that real knowledge of which this book deals and which does actually help to improve piano playing.”⁸⁹

⁸⁵ Neuhaus, 100.

⁸⁶ Neuhaus, 100

⁸⁷ Neuhaus, 85.

⁸⁸ Neuhaus, 98.

⁸⁹ Neuhaus, 98.

Despite his criticism of “supinators and pronators,” Neuhaus does seem to have some type of approval for usage of the forearm, even indirectly inviting a comparison to Matthay’s famous work, *The Visible and Invisible in Pianoforte Technique*, by noting that many movements in the arm are “hardly perceptible to the naked eye.”⁹⁰ These invisible motions in the arm are essential to the playing of scales,⁹¹ “Chopin-style arpeggios”⁹² and all manner of fast figurations.⁹³ Neuhaus even suggests that trills can be played from the arm in certain circumstances while admitting that trills played with a combination of the arm and fingers will be found to be “most convenient.”⁹⁴ Finally, according to Neuhaus, the arm can be used in octave playing,⁹⁵ and chordal playing, with the shoulder playing an additional role in the latter.⁹⁶

In sum, Neuhaus’s criticism of over-analyzing the role of the arm belies his own suggestions for its usage. The arm, as well as the shoulder and the body in general, play an essential role in piano technique, and they must match the mechanism of the instrument itself.

Conclusion

In comparing the thoughts of the three authors on the usage of the larger mechanisms of the body, there are several items to note. Perhaps the most conspicuous is their mutual assent at the necessity of proper technique in these larger mechanisms, yet

⁹⁰ Neuhaus, 103.

⁹¹ Neuhaus, 103.

⁹² Neuhaus, 104.

⁹³ Neuhaus, 107.

⁹⁴ Neuhaus, 116.

⁹⁵ Neuhaus, 126

⁹⁶ Neuhaus, 129.

general lack of specifics regarding that technique. This is particularly evident in Lhevinne's writing; the author notes the importance of arm and body considerations, and yet offers few specifics about their implementation. Leimer and Neuhaus have more writing devoted to these, but they too lack specificity, particularly when compared to their writings on the wrist, hands, fingers, and the mental component. Each of these will be discussed in succeeding chapters.

There are two possible explanations for this relative vagueness. The first is that the topic of larger body mechanisms would have been so basic and obvious to the authors that they would have seen little need to discuss this topic in as much depth as other areas of technique. All three briefly mention proper bodily alignment and sitting position at the instrument and emphasize the importance of good posture. This seems to be a foundational element of their teaching, and, indeed, other piano treatises, not to mention elementary method books, also include body posture as an essential component of beginner instruction. If such a topic were so ubiquitous and basic, it is conceivable that the authors of the three treatises considered would have felt no need to provide excessive explanation of that topic.

The second possible explanation comes from a different point of view: rather than being so elementary and obvious that little needs to be said, it is possible that larger mechanisms piano technique were so little understood in that era of the authors' writing that more detailed discussion was simply not possible. Although Deppe, Rubinstein, Mason, and Matthay had already considerably influenced technical thought, emphasis on holistic approaches gained greater popularity in the latter half of the 20th century. Similarly, the piano-specific approaches of Dorothy Taubman and her student Edna

Golandsky gained prominence from the 1970s onward, giving rise to the Golandsky Institute. While these two schools of technique advocating proper alignment throughout the body are well-known today, they did not become popular until several decades after the deaths of Lhevinne (1944), Leimer (1944), and Neuhaus (1964). Hence, while certainly not as limited in scope as the strictly finger-oriented treatises of Clementi and Czerny, the three treatises reflect the limits of anatomical knowledge at the time, resulting in a lack of specific information regarding larger body mechanisms.

CHAPTER THREE

THE WRIST

Introduction

In the previous chapter, Lhevinne, Leimer, and Neuhaus's thoughts on the larger mechanisms of the piano technique were considered, including the upper arm and forearm. In this chapter, consideration will be given to their writings on the wrist. As a component of piano technique, the wrist has generated particular interest for its role in creating tone, playing octaves, and serving as the guarantor of flexibility and freedom in playing. A number of scholarly writings, including dissertations, have been dedicated solely to this component; elementary method books often include instructions or depictions of proper wrist usage, though individual authors may disagree as to the specifics;⁹⁷ finally, treatises and books from the 19th century to the present have focused on the wrist, and a "loose wrist" in particular as a most essential part of good technique. The coming historical discussion of the wrist will provide chronological context for the perspectives of Lhevinne, Leimer, and Neuhaus.

While earlier treatises, such as that by C.P.E. Bach, and volumes of exercises, such as those by Clementi and Czerny, tended to focus on the fingers, by the 19th century

⁹⁷Julie Knerr, "Strategies in the Formation of Piano Technique in Elementary Level Piano Students: An Exploration of Elementary Level Technical Concepts According to Authors and Teachers from 1925 to the Present" (Norman, OK, University of Oklahoma, 2006).

the wrist had become widely recognized as a critical component of piano technique.⁹⁸ As mentioned in the prior chapter, one of the crucial transitional figures in this paradigm shift was the German instructor Ludwig Deppe. Though Deppe left relatively few writings himself, his novel approach to teaching technique was considered revolutionary in its time. Deppe was insistent that relaxation in the wrist and forearm were more important than the individual dexterity of the fingers, which Deppe thought had been discussed far too often by earlier authors.⁹⁹ Another important transitional figure, also mentioned in the previous chapter, was Tobias Matthay, the famed British pedagogue, whose lengthy teaching career partly overlapped with Deppe's. Matthay thoroughly discussed the wrist throughout his teaching and writing, which spanned the late 19th and early 20th centuries. In *The Visible and Invisible in Pianoforte Technique*, Matthay mentions the wrist a total of 72 times, often as a part of the compound construction which he calls the "wrist-joint."¹⁰⁰ Both Deppe and Matthay were insistent that relaxation in the wrist and forearm were of great importance. The thoughts of these two figures are representative of the wider paradigm shift that was occurring in 19th-century pedagogical thought; this shift provides the framework within which all the 20th-century piano treatises were written, including the three discussed here.

The general agreement that arose regarding the importance of the wrist does not, however, imply that every author agreed on the specific aspects of wrist technique. There were significant disagreements, particularly in terminology and attainment of proper

⁹⁸ Gerig, Chapter 12.

⁹⁹ Gerig, 256.

¹⁰⁰ Tobias Matthay, *The Visible and Invisible in Pianoforte Technique* (London: Oxford University Press, 1932).

wrist technique. While various authors did differ on the specifics, there are a few general items relating to the wrist on which they all tended to agree. The first item is *relaxation*. Matthay, for instance, builds his entire philosophy of technique around the principle of relaxation. According to Matthay, too much stiffness, or tension in the muscles, and in particular the wrist-joint, causes poor performance. Other theorists, including Deppe and the American pedagogue William Mason, agreed, though their terminologies differed.¹⁰¹ The second area in which authors generally agree is the relationship between the wrist and tone quality. The wrist, according to them, is the source of good tone at the piano. Both of these concepts, wrist relaxation and the wrist as the source of tone, appear to have had a strong influence on the authors considered in this document. Lhevinne, Leimer, and Neuhaus all have much to say about the wrist, and in general their writings all reflect the contemporaneous beliefs in wrist relaxation and wrist as source of tone. However, as was the case with Matthay, Deppe, and Mason, each of them will also have significant areas of disagreement.

Lhevinne

In *Basic Principles of Pianoforte Playing*, Lhevinne's first mention of the wrist appears in the second chapter, under the heading "Essentials of a Good Touch." Here, he gives a comprehensive listing of all of the "playing members," within which he refers to the wrist as the "hinge" between the hand and the arm.¹⁰² In this section, Lhevinne is primarily concerned with the role that each of these components plays in the production

¹⁰¹ Gerig, *Famous Pianists and Their Technique*, 240, 511.

¹⁰² Lhevinne, 12.

of good tone at the instrument; this emphasis on tone production is a prominent feature of *Basic Principles*.

The wrist receives more specific attention under the heading titled “The Part the Wrist Plays in Good Tone.” In this section, Lhevinne introduces a unique phrase which he uses to describe the function of the wrist: the “natural shock absorbers of the human body.”¹⁰³ This descriptor is recurrent throughout Lhevinne’s treatise; however, in keeping with his ambiguous style of writing, Lhevinne does not elucidate precisely what he means by “shock absorbers.” Instead, he provides an illustrative metaphor:

If they [students] were compelled to ride at a high rate of speed over a rough road in an automobile without springs or shock absorbers, they would go through a very terrible experience. They would be jarred and bumped almost to death. Yet that is what many students actually do in their piano playing. If the cushions of flesh on the ends of the fingers are the pneumatic tires in piano playing, the wrist is the spring or the shock absorber. For this reason it is next to impossible to produce a singing tone with a stiff wrist. The wrist must always be flexible. The more spring the less bump, and it is bumps that make for bad tone on the piano.

As noted earlier, Lhevinne’s writing (as well as Neuhaus’s) is filled with these types of analogies, which take a known, lived experience and translate it to piano playing. It is of interest to note that, in addition to his passions for nature and stargazing, Lhevinne was an automobile enthusiast, and during his time in New York City he took great pride in the expensive car which he drove.¹⁰⁴ For Lhevinne, a metaphor involving an automobile was appropriate, as it related his own personal experience to one at the piano.

Aside from this metaphor, however, Lhevinne does not state specifically how the wrists serve as shock absorbers, instead pivoting to a musical example, Liszt’s “La

¹⁰³ Lhevinne, 31.

¹⁰⁴ References to Lhevinne’s enthusiasm for his automobile and driving in general abound in Wallace. See pgs. 200, 209, 235-236.

Campanella.” In referring to the famous etude, he somewhat confusingly admits that a “stiff wrist and pointed fingers are not only permissible, but absolutely necessary.”¹⁰⁵

This seems to be a contradiction, given the above statement on the necessary flexibility of the wrist. However, Lhevinne has in mind that “La Campanella” requires a particularly brilliant sound which he believes only stiff wrists can achieve. In this way, Lhevinne reveals himself to be less rigid in his thinking than his terse style would imply.

After the admission that certain musical passages may necessitate a stiff wrist, Lhevinne returns to the idea of cultivating looseness in the wrist. To this end, he provides an exercise. A student is instructed to play a G major scale in whole notes. The student must hold their hand above the keys before playing and use only the second (index) finger for the entire scale. In Lhevinne’s own words, the student must be sure that the wrist is still “very flexible so that the weight of the descending hand and arm carries the key down to key bottom, quite without any sensation of a blow.” In this way, students will develop the specific “singing tone” that he wishes to cultivate, by avoiding what he calls the “bump,” because “It is the blow of the bump which is ruinous to good tone.”¹⁰⁶ This statement provides slightly more insight into what exactly Lhevinne meant earlier when he referred to “natural shock absorbers.” It is the role of the wrists to absorb the power of the arms and transfer that energy into the piano, preventing the arms from creating that “bump” as a result of attacking the keyboard.

Lhevinne’s emphasis on looseness in the wrist is shared by the other authors, and one of the recurring tenets of technique literature. According to Lhevinne, the wrist must

¹⁰⁵ Lhevinne, 19.

¹⁰⁶ Lhevinne, 21.

be so loose that is “normally sinks below the level of the keyboard.”¹⁰⁷ This idea of looseness is the central focus on a later section, titled “Natural Shock Absorbers,” a section which, as the title implies, also returns to the colorful conception of the wrist’s role in conjunction with the rest of the playing mechanism.¹⁰⁸ Lhevinne returns to his pianistic ideal, Anton Rubinstein, and explains that his utilization of looseness in his wrists is what allowed him to play remarkably loud without ever causing “pounding.” According to Lhevinne: “Rubinstein’s wrists were always free from stiffness... he took advantage of the natural shock absorber at the wrist which we all possess.” Rubinstein’s wrist technique was an ideal to which Lhevinne aspired throughout his life, and it represented the perfect integration of the wrist as the crucial connection of the powerful larger mechanisms to the fingers: “[Rubinstein] did not pound down upon the keyboard, but communicated his natural arm and shoulder weight into it.”¹⁰⁹

To Lhevinne, the looseness of the wrist is the key. It allows the artist to draw “the tone from the piano by weight or pressure properly controlled or administered.”¹¹⁰ He even invites the reader to experiment with “stiff wrists and forearms,” which will inevitably lead to unpleasant sonorities. In contrast, when playing with “the wrists loose, employing the fleshly parts of the fingers and feeling that the weight and power are communicated to the keyboard from the shoulder,” the musician will find the tone much more agreeable.¹¹¹ This, then, is what Lhevinne meant when using the analogic term “shock absorbers.” The wrists must serve to transfer the weight of the arm to the fingers

¹⁰⁷ Lhevinne, 21.

¹⁰⁸ Lhevinne, 31.

¹⁰⁹ Lhevinne, 31.

¹¹⁰ Lhevinne, 31.

¹¹¹ Lhevinne, 32.

in such a way that the force will be retained while the harshness is mitigated. This can only be achieved if the wrist is loose.

In summary, Lhevinne's short treatise contains a great deal of information on his thoughts regarding the role of the wrist in piano playing. Although he is characteristically obscure in his description, using the metaphor of "shock absorbers" on an automobile, Lhevinne nonetheless reveals his strong opinions on the essential function of the wrist. According to Lhevinne, the wrist must, with a few specific musical exceptions, remain loose in order to direct the weight of the arm into the keys while also preventing "disagreeable pounding."

Leimer

In *Piano Technique*, Leimer somewhat surprisingly expresses a point of view regarding the wrist which runs contrary not only to Lhevinne and Neuhaus, but also to the prevailing opinions expressed by Deppe, Matthay, Mason, and others. Leimer states this plainly and admits that it is idiosyncratic: "In contrast to many teachers, I very rarely make use of the touch from the wrist."¹¹² Instead, the combined touch of the forearm and upper arm are his teaching focus, as the wrist touch he considers to be "much more uncertain."¹¹³ However, he forcefully rejects the idea that he encourages students to play with a stiff wrist, stating that he never allows his students' wrists to "degenerate into stiffness or cramp."¹¹⁴

¹¹² Leimer, 19.

¹¹³ Leimer, 19.

¹¹⁴ Leimer, 20.

Because of this aversion to teaching “wrist touch,” Leimer has comparatively little to say about the wrist’s specific role in proper technique. However, this does not mean that he refrains from discussing the wrist entirely. Both volumes contained within *Piano Technique* have several references to the wrist and suggest that perhaps Leimer is more interested in proper wrist technique than his initial claims of aversion may suggest. For instance, Leimer insists that relaxation in the wrist is essential, but it must be firm enough to avoid “breaking down.”¹¹⁵ The wrist plays an important role in Leimer’s descriptions of learning a Bach invention¹¹⁶ and Beethoven’s Op. 2 No. 1.¹¹⁷ The latter discussion especially contains specific instructions on the use of the wrist in the left hand chords, although, due to the highly integrated conception of this treatise, Leimer frequently shifts focus from technique to phrasing, interpretation, visualization, and other topics.

The wrist’s role in chordal technique is fully discussed in the second volume of *Piano Technique*, i.e. *Rhythmics, Dynamics, Pedal, and Other Problems of Piano Playing*. There, he recognizes the important role of the wrist in playing chords,¹¹⁸ but insists that the wrist is not the only involved part of the playing mechanism: “Not so very long ago it was customary and advisable to play each chord and each octave exclusively from the wrist. But the teachers themselves would not live up to this method.”¹¹⁹ Over the next several pages, Leimer describes in highly analytical language the role which the wrist, in conjunction with the other members of the playing mechanism, plays in various

¹¹⁵ Leimer, 21.

¹¹⁶ Leimer, 28-32.

¹¹⁷ Leimer, 32-42.

¹¹⁸ Leimer, 105.

¹¹⁹ Leimer, 106.

types of touches (“Anschlagen”). The first of these, the “free fall,” was mentioned in the previous chapter, and expands upon on a concept originally introduced by Deppe.¹²⁰

Because the free fall can be used in any singular part of the playing mechanism, there will be times where this touch will be appropriate to the wrist. According to Leimer, “The free fall of the wrist calls for a fixation of the fingers, the upper arm hanging loosely, the lower arm fixed, in so far as the horizontal position demands it.”¹²¹

As in other sections of the treatise, it is difficult to extract exactly what Leimer envisions for the wrist only, as all parts of the mechanism are so intertwined. Indeed, the free fall itself can only be performed correctly if done in conjunction with other modes of touch: “The free fall that has no additional features is only a theoretical mode of touch and cannot be applied practically.”¹²² Leimer mentions the wrist while discussing several other modes of touch, including the “throw and stroke,” in which he states that the proper execution of this touch requires a “fixation of the wrist.”¹²³ The wrist is also alluded to indirectly in “the pressure.”¹²⁴ Finally, he revisits the use of the wrist in chords and octaves, again insisting that the idea of playing these only from the wrist is misguided. For Leimer, they “can be executed from plain finger work... they can be played from the wrist, from the elbow, as well as the shoulder.”¹²⁵ Each of these, according to Leimer, has their own place and usefulness, depending on the musical situation and context.

¹²⁰ Leimer, 107.

¹²¹ Leimer, 107.

¹²² Leimer, 107.

¹²³ Leimer, 107.

¹²⁴ Leimer, 109-110.

¹²⁵ Leimer, 115.

With this level of specificity, it may seem that Leimer is unnecessarily belaboring his point, but it is essential to understand the context in which he was working. The wrist, as mentioned previously, was considered by many to be the most important component of correct technique, and this is especially true of octave and chord playing. One of the most important advocates of the “wrist in octave” approach was Friedrich Kalkbrenner (1785-1849), who will be discussed in the next chapter for his infamous endorsement of dangerous “finger-strengthening” devices. Kalkbrenner insisted that students play their octaves from the wrist, eschewing the use of the full arm.¹²⁶ Another strong advocate of using the wrist in octave playing was Josef Lhevinne, who, as has been seen, had much to say about the wrist in general. Although the wrist’s role in octave playing was not directly discussed in *Basic Principles*, Lhevinne was widely known for his unique, “high wrist” approach to octave playing, and in other articles he advocated its usage.¹²⁷ With these examples in mind, it is understandable that Leimer takes a particularly strong stance in his opinions on wrist technique.

Although Leimer does not have as much to say about wrist technique as other components of piano playing, and although he insists that touch from the wrist is overrated, he nonetheless participates in the larger conversation surrounding the wrist and refers to its usage multiple times in *Piano Technique*. The wrist is an essential component of playing, according to Leimer, and it must be properly coordinated with the fingers and the arm. It must remain flexible, but have enough firmness so as to not “break.”

¹²⁶ Gerig, 131, 132.

¹²⁷ Wallace, 138.

Neuhaus

Neuhaus's opinions on the proper function of the wrist are largely in line with the prevailing thoughts of his day; namely, that looseness in the wrist is essential to a healthy playing mechanism. However, Neuhaus has a particular proclivity for the word *freedom*, which captures both technical and musical considerations. Relaxation and "freedom" in the wrist are essential for producing good tone,¹²⁸ but pianists must also achieve "spiritual freedom,"¹²⁹ which, paradoxically, often takes the form of intense concentration. Neuhaus holds up as an ideal the example of his own teacher, Leopold Godowsky (1870-1938). Godowsky, who was renowned for his remarkable technique,¹³⁰ exhibited absolutely no tension in his wrists or arms, but his face indicated a deep level of concentration, or, as Neuhaus calls, it, "spiritual energy." This, according to Neuhaus, is "where real technique comes from."¹³¹ The idea of mental or spiritual energy will be discussed in greater detail in the final chapter, but it is important to note that Neuhaus considers freedom of the wrist to be inseparable from inner freedom.

In terms of practical advice in properly employing the wrist, Neuhaus has a few specific instructions which he offers to his readers. In practicing "intense, strong, loud, deep and precise," one must be sure that "the hand and arm, from the wrist to the shoulder, are completely relaxed, that there is no contraction, no 'freezing' or stiffening anywhere, that none of the potential flexibility is lost, and at the same time remain perfectly still, making only the movements which are absolutely essential."¹³² Neuhaus

¹²⁸ Neuhaus, 69.

¹²⁹ Neuhaus, 73.

¹³⁰ Charles Hopkins, "Godowsky, Leopold" (Oxford University Press, 2001).

¹³¹ Neuhaus, 105.

¹³² Neuhaus, 90-91.

even offers more specific advice in particular instances of representative repertoire. As mentioned in the previous chapter, he has specific advice relating to “Chopin-style arpeggios” regarding the forearm, but this advice applies to the wrist as well: “the forearm is in constant and smooth motion, the wrist turns when and as needed, and thanks to this the fingers strike the keys they need and are always, at every instant, in the most favourable and convenient position for so doing.”¹³³ This relaxation is necessary in the wrist, but Neuhaus also highlights its necessity in other parts of the mechanism—indeed, in the very next sentence, he again emphasizes the importance of total integration of all parts of the playing mechanism.

In terms of execution, smooth motion of the wrist is as essential as its looseness.¹³⁴ Economy of motion and “smoothness” is a recurrent theme and can be considered as a subset of the idea of freedom. As shall be discussed in the next chapter, the fingers are largely responsible for the correct execution of these ideas, but the whole mechanism must be properly integrated, including the wrist.¹³⁵ Other wrist-oriented suggestions for specific pianistic challenges are addressed in what Neuhaus refers to as the “elements of piano technique,” of which there are a total of eight.¹³⁶ In this lengthy discussion, Neuhaus assigns practically any conceivable combination of notes to one of these eight categories, beginning with the playing of a single note. The fifth of these, referred to as “double notes,” is particularly pertinent to the wrist, especially as regards the proper playing of octaves.¹³⁷ The best strategy for playing octaves, according to

¹³³ Neuhaus, 104.

¹³⁴ Neuhaus, 107

¹³⁵ Neuhaus, 94

¹³⁶ Neuhaus, 112-140.

¹³⁷ Neuhaus, 121-126.

Neuhaus, is the employment of a “semi-circle” in the wrist, although he does recognize that octaves can be played also from the fingers, forearm, or upper arm.¹³⁸ However, in adhering to his principle of the supremacy of mental concentration over physical tension, he also suggests that anything, including octaves, can be achieved by whatever means necessary, and that no difficulty is too much for determined students to overcome: “The principle of economy [must be] taken to its extreme limit (i.e. heightened imagination, a stubborn wish to get results regardless of any obstacles, and dogged patience.)”¹³⁹ In this section, as an addendum to the usage of the semi-circle, Neuhaus also advocates intelligent use of practice time; students should break down difficult tasks into smaller component pieces. In this, he also alludes to his predilection for the philosophy of Georg Friedrich Hegel (1770-1831): according to Neuhaus, pianistic problems are best tackled through “dialectics.”¹⁴⁰

To Neuhaus, the wrist is an essential aspect of the playing mechanism, but it cannot be considered in complete isolation. It must be conceived as part of a total whole, in conjunction with both the larger and smaller components. Most importantly, it must be considered subservient to the mental concentration which all great pianists exhibit, a mental concentration embodied by his teacher, Leopold Godowsky. For Neuhaus, a dedicated pianist will use this concentration to work through any technical challenges.

¹³⁸ Neuhaus, 126.

¹³⁹ Neuhaus, 123

¹⁴⁰ Neuhaus, 125. Hegel was a crucial figure in the German idealist movement. Neuhaus was deeply interested in philosophy in general, and Hegel was second only to Friedrich Nietzsche (1844-1900) in terms of influence upon Neuhaus’s thought.

Conclusion

Each of these authors has strong opinions regarding the role of the wrist in piano playing. Neuhaus and Lhevinne both see a relaxed wrist as an essential part of the mechanism, with Lhevinne using the term “natural shock absorbers” to emphasize the wrist’s role in tone. Neuhaus prefers to use the term “freedom,” and conceives of the wrist as being inseparable from the rest of the playing mechanism. Leimer agrees with Neuhaus in this respect, and generally discusses the wrist as being a part of a larger whole. Leimer is unique in that he openly states that he does not consider the wrist to be as important as others do. Yet, despite this, he includes it in all his discussions of species of touch and considers it essential for chordal playing. In all, each of the authors has a considerable amount to say regarding the wrist. In the next chapter, the smaller mechanisms, particularly the fingers but also including the hand, will be considered. Each author will have even more to say regarding these mechanisms.

CHAPTER FOUR

SMALLER MECHANISMS: THE FINGERS AND THE HAND

Introduction

This chapter will focus upon the three authors' respective thoughts on the smaller mechanisms of piano technique: the fingers and the hand. These mechanisms have generated significant historical discussion within the literature, and therefore an introduction to the historical context will be given at the outset. The respective thoughts of the three authors will then be explored in turn, and a conclusion including a brief comparison of their theories will be offered.

As has been noted previously, for much of the history of technical instruction at the keyboard, the primary emphasis was on the smallest components of the playing mechanism; namely, the hand, and, in particular, the fingers. From the days before the advent of the piano, through the middle of the 19th century, the isolated movements of the hand, the independence of the fingers, and the concept of "finger strength" were all dominant themes in treatises and lessons. One of the early major treatises to discuss this aspect of keyboard technique came from the great French Baroque composer Jean-Phillippe Rameau. This work, titled *Method sur Mecanique des doigts sur le Clavecin*, focused on harpsichord technique and was particularly concerned with the fingers. According to Rameau [emphasis by the author]:

The ability to walk or run derives from the flexibility of the knee-joint; the ability to play the harpsichord from the flexibility of the *fingers* at their roots. A larger movement is only admissible when a smaller is not sufficient: so long as a *finger* can reach a key without any other movement of the hand than a slight opening or stretching, one is not allowed to make a movement which goes beyond what is necessary. Every *finger* must preserve its own particular action, *independent* of the rest, so that even when the hand is moved to a more distant part of the keyboard, the striking *finger* none the less must fall upon the key solely from its own *independent* action.¹⁴¹

This excerpt epitomizes the thoughts of Rameau and his contemporaries. There are several mentions of both “finger” and “independence,” as well as an admonition against using larger movements, or coordinating the fingers with another or with the rest of the hand. This type of thinking is antithetical to a modern understanding of technique, particularly since the modern piano is a substantially different instrument than those of earlier centuries. As has been seen in the previous chapters, this type of finger-oriented thinking had already fallen out of favor by the time Lhevinne, Leimer, and Neuhaus were writing. Not long before this, however, it remained the primary conception of technique into the mid-Romantic period. Clementi and Czerny’s pedagogical works were largely written with finger dexterity and strength as the primary goal,¹⁴² as were those of Kalkbrenner, Hanon, and the reactionary Stuttgart School (the “finger school”).¹⁴³ This last group represents the most extreme view of total finger independence; the works of Lebert and Stark belong in this category.

These types of approaches had a profoundly negative influence on many students’ technical development. They resulted in the strange and sometimes dangerous contrivances such as the Chiroplast, the Dactylion, and Kalkbrenner’s own device, the

¹⁴¹ Gerig, 17-18.

¹⁴² Gerig, Chapter 7.

¹⁴³ Gerig, Chapter 12.

“hand guide.” It is said that Robert Schumann, in attempting to achieve total independence of the fingers through such a device, prematurely ended his performing career. In contrast to this fixation on the fingers, certain theorists such as the aforementioned Rudolf Breithaupt and Neuhaus’s teacher Godowsky totally minimized the role of the smallest mechanisms, focusing exclusively upon “arm weight.”¹⁴⁴ It would take the work of Deppe, Mason, Matthay, and others to bring an equilibrium of thought between these polar extremes.

The historical prevalence of finger technique is evident in all three treatises considered in this document. Each author dedicates considerable space to discussing the role of the fingers, as well as the hand. Although the authors recognize the need for a complete and holistic playing mechanism which utilizes the contributions of each member, the pre-existing body of work regarding the fingers covers several hundred years. This is compared to the century of writing on the wrist and the mere decades of writing about the larger mechanisms. Some aspects of this earlier thought will be rejected or embraced in turn by each author, but the incomparable depth of literature on finger technique results in this being an area in which each author expresses deep convictions.

Lhevinne

Both Josef and Rosina Lhevinne studied at the St. Petersburg Conservatory at a time when Russian pianism placed great emphasis upon finger technique. Lhevinne’s own teacher, Vasily Safonov (1852-1918), heavily emphasized the development of the fingers through his teaching, exemplified in his short treatise, *New Formula for the Piano*

¹⁴⁴ Gerig, Chapter 16.

Teacher and Piano Student.¹⁴⁵ This brief work contains specific exercises designed to enhance finger independence and evenness.¹⁴⁶ Contemporaries of the Lhevinnes, including the famous composer Sergei Rachmaninoff (1873-1943), who graduated from the conservatory the same year as Josef, had much to say regarding the finger training which he and his fellow students experienced. In James Francis Cooke's compendium of interviews with various concert pianists, Rachmaninoff goes into great detail regarding the finger training of Russian conservatory students, with emphasis on scales, Hanon studies, and Czerny etudes.¹⁴⁷

Given this background of musical training, it is unsurprising that Lhevinne had a considerable amount to say regarding the fingers in *Basic Principles*. In the same heading mentioned in the previous chapter, "Essentials of a Good Touch," Lhevinne places the fingers and hand as the respective primary and secondary playing members which must be considered. In this section, Lhevinne places particular emphasis on the importance of the fingers:

With me, touch is a matter of elimination of non-essentials, so that the greatest artistic ends may be achieved with the simplest means. This is a general principle that runs through all the arts. Thus, in the manipulation of the fingers on the keys, I direct my pupils to cut out any action upon the part of the fingers except at the metacarpal joints.¹⁴⁸

In the succeeding paragraph, he expands upon this, getting quite granular in his level of attention to detail, and offering a criticism of the finger school:

¹⁴⁵ Gerig, 296

¹⁴⁶ Vasily Safonov, *New Formula for the Piano Teacher and Piano Student* (London: J&W Chester, 1916).

¹⁴⁷ James Francis Cooke, *Great Pianists on Piano Playing* (Philadelphia: Theodore Presser, 1917). 210-212.

¹⁴⁸ Lhevinne, 12.

There was a time, I am told, when the great aim of the piano teacher was to insist that the hand be held as stiff and hard as a rock while the fingers rose to the position... in which all the smaller joints were bent or crooked, and then the finger descended upon the key like a little sledgehammer. The effect was about as musical as though the pianist were pounding upon cobblestones. There was no elasticity, no richness of tone, nothing to contribute to the beauty of tone color of which the fine modern piano is so susceptible.¹⁴⁹

As indicated in this quotation, Lhevinne includes an instructive illustration which helps the reader to understand what he means by having the action of the fingers come exclusively from the metacarpal joints.¹⁵⁰ The above quote also reminds the reader of the relationship in Lhevinne's mind between the fleshiness of a hand, and the sound created by that hand. According to Lhevinne, Anton Rubinstein had a "fat, pudgy hand, with fingers so broad at the fingertips that they often had difficulty in not striking two notes at one time," and this gave Rubinstein a very full sound.¹⁵¹ Lhevinne continually returns to the idea of tone production and its relationship to the fingers.¹⁵² This particular idea of Lhevinne's is one which was particularly popular at the time, but has since fallen out of favor, due largely to the influence of 20th-century music researchers, particularly Otto Ortmann (1889-1979) and Arnold Schultz (1903-1972).

The work of Ortmann and Schultz, dating from a few years after the writing of Lhevinne's treatise, suggests that there is no qualitative difference in tone created by the type of object which touches the key's playing surface.¹⁵³ The speed of key descent, and the corresponding action of the hammer against the strings, is essentially the only aspect of tone quality which the pianist can control. According to Ortmann, the part of the body

¹⁴⁹ Lhevine, 13.

¹⁵⁰ Lhevinne, 13.

¹⁵¹ Lhevinne, 14.

¹⁵² Lhevinne, 14.

¹⁵³ Lim, 73, 86.

which comes into contact with the key does not make a difference. Nonetheless, the possibilities of tone color and the means of achieving these possibilities have always been of great interests to theorists, particularly in the pre-Ortmann era, and Lhevinne's writing reflects this preoccupation. Regarding the fingers, Lhevinne claims: "If that part [of the finger] is well covered with cushions of flesh, the tone is likely to be far better than if it were hard and bony."¹⁵⁴ In the succeeding heading, "The Ringing, Singing Tone," Lhevinne further insists that: "The smaller the surface of the first joint of the finger touching the key, the harder and blunter the tone; the larger the surface, the more ringing and singing."¹⁵⁵ These thoughts may be considered unsubstantiated by today's standards, but they are perfectly in line with Lhevinne's internal logic and the prevailing technical thought of his time. They are also reflective of Lhevinne's own personally spiritual way of writing when discussing music.

Lhevinne's spiritual approach continues to influence his discussions of the fingers in the succeeding chapters. Lhevinne claims, for instance, that "the player can actually think moods and conditions into his arm and fingers."¹⁵⁶ This underscores the importance of communicating with an audience, even a non-musical one. However, in addition to these metaphysical thoughts, Lhevinne does offer practical advice. In contrast to the theories of the finger school, Lhevinne instructs his students to keep their fingers on the surface of the keys,¹⁵⁷ an approach that was also advocated by Tobias Matthay, among others.¹⁵⁸ Lhevinne also has much to say about the importance of fingering. It must be,

¹⁵⁴ Lhevinne, 18.

¹⁵⁵ Lhevinne, 18.

¹⁵⁶ Lhevinne, 26.

¹⁵⁷ Lhevinne, 27

¹⁵⁸ Gerig, Chapter 17.

according to him, “the best possible,” and “must be adhered to in every successive performance.”¹⁵⁹ From an articulative point of view, he notes that there is a type of finger staccato,¹⁶⁰ in addition to the brilliant staccato from the arm, which was mentioned earlier in this document as necessary for works like “La Campanella.” As the treatise nears the end, he suggests that speed in playing (“velocity”) is perhaps rooted in the looseness of the smaller mechanisms: “Perhaps the best general principle is the acquisition of the habit of playing with an extremely loose, floating hand. Rigidity of the muscles and velocity never go together.”¹⁶¹ This correlates with Lhevinne’s theories of relaxation in the arms and wrists, which were discussed in the preceding chapters.

In sum, Lhevinne has a great deal to say about the fingers, as well as the hand, in his relatively short treatise. Highly specific advice is offered, including instructions on the proper usage of the metacarpal joints. This specificity is sometimes undercut by his now-dated thoughts on the fingers’ relationship to tone quality. Nonetheless, Lhevinne’s advocacy of attention to detail and his deep convictions regarding the proper usage of the fingers make this area of his writing a notable contribution.

Leimer

Piano Technique features discussions regarding the fingers and hand which reflect Leimer’s characteristically analytic approach to technique. He is particularly critical of the “finger school” of the prior century which placed such heavy focus on finger strength and independence, but also voices criticisms of thinkers such as the aforementioned

¹⁵⁹ Lhevinne, 34.

¹⁶⁰ Lhevinne, 36.

¹⁶¹ Lhevinne, 45.

Rudolph Maria Breithaupt, who focused exclusively on “arm weight,” arguing that the fingers played almost no role in technique whatsoever.¹⁶² Both of these schools of thought originated in Leimer’s native Germany. Hence, it is understandable that Leimer would have developed strong opinions on extremes, rejecting any kind of dogmatic approach, and instead advocating a compromise that emphasized both the importance of the fingers and the larger mechanisms.

It is worth noting that Leimer considers the control of the fingers to be central to the very definition of technique: “Technique, when playing an instrument, means controlling the fingers.”¹⁶³ Leimer approves of this overall conception, yet also considers it to be a somewhat narrow point of view: “Generally, it [technique] is used only in a limited sense regarding fluency, rapid execution of difficult passages, and steady aim.”¹⁶⁴ As may be expected from Leimer, given his distaste for dogmatism regarding the fingers, he is critical of this narrow point of view. As with the rest of Leimer’s treatise, his belief is that the fingers must be wholly integrated within the rest of the playing mechanism, as well as the mental aspect of piano playing: “Perfect technique and absolute control of the fingers are necessary, and these can be obtained only by carefully training the ear.”¹⁶⁵ The fingers, the larger mechanisms, the ear, and the mind are all inseparable. As shown previously, his writing frequently refers to their essential interrelatedness.

A good example of this interrelation as regards the smaller mechanisms can be found in the second chapter, wherein Leimer offers thoughts on utilizing the natural

¹⁶² Leimer, 106.

¹⁶³ Leimer, 90.

¹⁶⁴ Leimer, 90.

¹⁶⁵ Leimer, 56-57.

position of the hand and fingers.¹⁶⁶ Leimer insists that the fingers should not be over-curved, and that the tendency to over-curve results in weakness of tone.¹⁶⁷ In the same chapter, he also insists that there must be a proper relationship between the fingers, ear, and brain: “The fingers are the servitors of the brain, they perform the action the brain commands. If, therefore, by means of a well-trained ear, it is clear to the brain how to execute correctly, the fingers will do their work correctly.”¹⁶⁸ Leimer also reveals a consistency of thought with Lhevinne regarding efficiency of motion: “Another important point, in which my playing differs from that usually seen, consists in the elimination of all unnecessary movements. Repose and the avoiding of all unnecessary movements are absolutely necessary.”¹⁶⁹

Leimer believes that the relaxation of the arm is a necessary prerequisite for the proper utilization of the fingers. Leimer’s thoughts on relaxing the arm have been discussed previously, but this was in consideration of the arms as an end unto themselves. By contrast, he also offers a neurological reason for relaxing the arm: “Only by means of the relaxed arm can impulses proceeding from the brain be transformed, without restraint, into finger movement.”¹⁷⁰ The integrative aspect of Leimer’s thinking is again revealed: control of the fingers must necessarily mean relaxation of the arm. Relaxation is also essential for the fingers themselves, particularly in executing ornaments, and achieving evenness in complex passages.¹⁷¹

¹⁶⁶ Leimer, 13.

¹⁶⁷ Leimer, 22.

¹⁶⁸ Leimer, 20.

¹⁶⁹ Leimer, 13.

¹⁷⁰ Leimer, 20.

¹⁷¹ Leimer, 26; Leimer, 38.

Another area related to the fingers discussed in *Piano Technique* is fingering. Leimer considers this area to be of great importance, and offers several tips for fingering, including thumb-slides.¹⁷² Leimer insists that, in considering fingering, a pianist should keep in mind the unique character of each individual finger.¹⁷³ For instance, the third finger, according to Leimer, is the strongest, whereas the fourth is designated as the “sorrow child” due to its relative weakness.¹⁷⁴ This emphasis of individuality of each digit is a major disagreement that Leimer has with the finger-oriented Stuttgart school. He summarizes his critique thusly: “In endeavoring to apply the same strength with every finger, you will notice that the thumb, due to its natural position, invariably strikes too softly, the second and third too loudly, the fourth weakest of all, and the fifth, owing to its shortness, necessitates greater energy.”¹⁷⁵

The weakness of the fourth finger is of considerable interest to Leimer, and he suggests practicing broken chords as a means of developing it.¹⁷⁶ However, he generally prefers to use repertoire instead of “finger exercises, scales, and arpeggios... I am of the opinion that these means for developing technique are, as a rule, used too much.”¹⁷⁷ In the second volume, he reiterates this point, stating: “In my opinion, studies and finger exercises are superfluous, excepting in a small measure, for beginners. As we already have stressed, it is best to select the necessary mechanical problems from each new work

¹⁷² Leimer, 28.

¹⁷³ Leimer, 55, 90, 111. In each of these sections, he stresses the individuality of each finger.

¹⁷⁴ Leimer, 111.

¹⁷⁵ Leimer, 91.

¹⁷⁶ Leimer, 55.

¹⁷⁷ Leimer, 50.

which we intend to study.”¹⁷⁸ Clearly, Leimer has a low opinion of technical studies as ends unto themselves.

A sizable portion of the second volume is spent on what Leimer refers to as “modes of touch.” However, as mentioned previously, Leimer’s meaning of the word “touch” (“Anschlag”) has specific connotations. For instance, Lhevinne’s conception of touch and the tone it produces is based primarily on which part of the hand is physically contacting the keyboard. Leimer, however, uses “touch” (“Anschlag”) to refer to the physiology of the entire playing mechanism, from fingertip to shoulder. While he does not himself offer a specific definition for the word “touch,” a good summary of his understanding of the word can be found in an expository paragraph in the second volume: “Every known mode of touch is used in the execution of tone forces. The softest tones and chords are produced by laying the fingers on the keyboard, gently pressing down the keys.”¹⁷⁹

Leimer’s understanding of touch is shared by a few specific teachers whom he lists as follows: “Deppe, Caland, Klose, Soechting, Dr. Steinhausen, and Breithaupt.”¹⁸⁰ However, Breithaupt, in Leimer’s estimation, went too far in de-emphasizing the fingers, since “technique without finger development is unthinkable.”¹⁸¹ With these pedagogues in mind, Leimer synthesizes their thoughts with his own by outlining the four different “modes of touch” which he considers to be available to the pianist, some of which have been discussed previously. In order, they are: the free fall, the throw / stroke / swing, the

¹⁷⁸ Leimer, 92.

¹⁷⁹ Leimer, 105.

¹⁸⁰ Leimer, 106.

¹⁸¹ Leimer, 106.

roll, and the pressure.¹⁸² In Leimer’s description, each of these constitutes a single motion, either from one singular member of the playing mechanism, or some simple combination of them. Each of these four “modes” require more than just the activation of the fingers, but also require more than just simple arm weight. Hence, Leimer again criticizes the dogmatism of Breithaupt, stating that it was “an original but utterly wrong idea of pedagogues to insist upon cutting out the active movement of the finger and designating only the equal fixation as a necessary means for the touch.”¹⁸³

Throughout his treatise, Leimer consistently refuses to fully embrace Breithaupt’s ideas, and he insists that developing good finger technique is still important: “In my opinion the development of fingers should be encouraged, since it is the point of departure in the attainment of a good keyboard technique. The student should be taught the fundamental principles of finger action from the very beginning.”¹⁸⁴ Indeed, Leimer even offers suggestions for specific study material, stating that five-finger exercises played in all keys are ideally suited to training the fingers.¹⁸⁵ This material is offered despite his admitted preference of repertoire instead of exercises.¹⁸⁶ This type of finger-specific training is necessary for trills, which Leimer believes must be practiced “with every possible fingering”¹⁸⁷ and must be played with both fingers and hand in contact

¹⁸² Leimer, 106. Here he also references the work of Dr. Eugene Tetzl, whose 1909 “Problem of Modern Pianoforte Technique” seems to have had a considerable influence on Leimer’s theories of touch. Tetzl’s work is not yet available in English.

¹⁸³ Leimer, 111.

¹⁸⁴ Leimer, 111.

¹⁸⁵ Leimer, 114.

¹⁸⁶ Leimer, 114: “The training of the fingers is most essential in the primary grade of piano playing. To this end the five-finger exercises are basic in finger technique. These may be found in every ‘School of Piano Playing,’ for which reason I shall not express myself any further with regard to them.”

¹⁸⁷ Leimer, 57.

with the keys.¹⁸⁸ This, naturally, fits in with his overall conception of eliminating unnecessary movements. In fact, the heading of this section is titled “Tranquility in Movement,” and it closes the first volume of the work, underscoring its importance to Leimer’s thinking.

In sum, *Piano Technique* contains a great deal of information on the usage of the smaller mechanisms involved in piano playing. Leimer takes a strong stance against the obsession with equality of the fingers of earlier instructors and theorists. However, he still considers the development of the fingers to be an essential aspect of technique, particularly in the early stages of development. Perhaps the most important distinction in his thought is his insistence on the unique strengths and weaknesses of each individual finger, an idea that will be expounded upon by Neuhaus. Finally, it is worth noting his continuing integration of the smaller mechanisms with each of the other parts of the technique. This is particularly notable in his conception of the various “modes of touch.” These modes, and, indeed, Leimer’s overall approach, are predicated upon elimination of unnecessary movements.

Neuhaus

Neuhaus, like Lhevinne and Leimer, was writing in an environment which had particularly emphasized the development of the fingers. Accordingly, he too has a great deal to say regarding the smaller mechanisms, and he expresses characteristically strong opinions about their proper usage. As mentioned in previous chapters, Neuhaus considers it essential to use every possible anatomical movement natural to humans, but he is

¹⁸⁸ Leimer, 59.

particularly eloquent in his explanations of the hands and fingers, referring to both body parts as “these living creatures who carry out the pianist’s will and are the direct creators of piano playing.”¹⁸⁹

This quote is taken from the chapter titled “On Technique,” which, as was the case with the larger mechanisms and the wrist, contains most of Neuhaus’s thoughts on the smaller mechanisms. A good summary of Neuhaus’s guidance on the role of the small mechanisms, and in particular the hand, was also referenced in chapter two of this document but is repeated here:

The piano is a mechanism... and man’s work at the piano is to a certain extent a mechanism, if only because he has to make his body conform to the mechanism. When producing a sound on the piano the energy of the hand (of the finger, forearm, the whole arm, etc.) is transformed into the energy of the sound. The energy of the blow which the key receives is determined by the force— F —which we apply to the hand and the height— h —to which the hand is raised before being lowered on to the key. The speed of the hand at the moment when it strikes the key (v) varies depending on the value of F and h . It is precisely this figure (v) and the mass (m) of the body (finger, hand, arm, etc.) striking the key that determines the energy which acts upon the key.¹⁹⁰

As was mentioned earlier, the quasi-scientific way of conceptualizing technique is recurrent in Neuhaus. While specifically referring to the hand, this “equation” makes several appearances in the text. His emphasis on force and height (F and h), as well as the speed of the key descent (v —perhaps for “velocity”) reflect a Breithauptian view of technique, focused upon arm weight. This is reinforced in his criticism of so-called “finger-strength,” as it is “only the ability of the fingers and hand to *support* any kind of load” [emphasis by the author].¹⁹¹ The term “finger-strength” is invalid, according to

¹⁸⁹ Neuhaus, 93.

¹⁹⁰ Neuhaus, 85.

¹⁹¹ Neuhaus, 93.

him, because: “Anyone conversant with anatomy and physiology will tell you that the strength of the fingers, properly speaking, is negligible compared to the force which the pianist is able to develop at the piano in case of need.”¹⁹² However, Neuhaus’s insistence that the fingers have distinct roles as independent units responsible for clarity, evenness, and smoothness¹⁹³ reveals that he considers the development of the fingers to be of great importance.

Despite Neuhaus’s rejection of the term “finger-strength,” and his self-professed dislike of exercise books which use mechanical exercises,¹⁹⁴ he does believe that the fingers must be capable of holding the weight of the entire body. This is the “main task of the fingers,” which he considers to be either “pillars” or “arches.”¹⁹⁵ For this reason, the fingers must be integrated with the entire pianistic mechanism. Fortunately, the human hands and fingers are perfectly suited to this task: “The mechanism of our hand and fingers is ideal as far as piano playing is concerned... I intend to sing many a madrigal to the hands and fingers.”¹⁹⁶ This ideal is at least partly due to the fact that, according to Neuhaus, each finger is uniquely endowed with specific qualities.¹⁹⁷ The discussion of each of the individual fingers includes some of the most humorous passages in the entire treatise. The thumb, Neuhaus says, is “so strong,” while the fourth finger, “poor thing,” is much weaker.¹⁹⁸ And yet, while earlier theoreticians may have lamented this, Neuhaus

¹⁹² Neuhaus, 93.

¹⁹³ Neuhaus, 93-94.

¹⁹⁴ Neuhaus, 85. In his characteristically humorous way, he offers a sarcastic comment on the types of exercises reminiscent both of Kalkbrenner and the “finger school,” as well as Dohnányi and Cortot.

¹⁹⁵ Neuhaus, 94.

¹⁹⁶ Neuhaus, 95.

¹⁹⁷ Neuhaus, 95.

¹⁹⁸ Neuhaus, 96.

insists that these differences do not make any of the individual fingers inferior to another.

According to him:

What an experienced pianist values most of all, in his fingers, is that every one of them is an individual, that each one has certain individual functions which it performs preferably to others, but that every one of them is capable of replacing its fellow in case of need... The well-trained hand of a good pianist is an ideal community: each for all and all for each one; each one a separate individual, and all together—a united community, a single organism!¹⁹⁹

The uniqueness of the fingers, and their communal support of one another, plays a major part in Neuhaus's understanding of proper fingering. In general, fingering should support the best intentions of the interpreter,²⁰⁰ but the unique roles of each finger will certainly affect certain aspects of a pianist's fingering choices. The fifth finger, for instance, must be trained "to sing," since it generally plays the melodic note at the top of chords.²⁰¹ In fact, according to Neuhaus, the fifth finger must be trained to be stronger than his students sometimes are willing to attempt. He humorously states: "I tell them: do not forget that with the fifth finger you can even kill a man (although personally I have never had the urge to do so)."²⁰²

Still, since Neuhaus believes that any finger must be capable of "replacing its fellow," pianists must be ready for a variety of fingerings in different situations: "All experienced pianists are able to replace one fingering by another if necessary, but in practicing, one must, as a rule, learn one firmly established fingering, the best one of all those possible."²⁰³ This is for reasons of memory: "...the pianist makes use of two

¹⁹⁹ Neuhaus, 96.

²⁰⁰ Neuhaus, 97.

²⁰¹ Neuhaus, 137.

²⁰² Neuhaus, 154-155.

²⁰³ Neuhaus, 147.

memories, the musical (spiritual) and the muscular (bodily) memory.”²⁰⁴ This principle of fingering seems to lead Neuhaus into some unique territory. His fingering for the second prelude from the first book of Bach’s Well-Tempered Clavier, for instance, is highly unusual, as he insists on placing the thumb on a black key and crossing the second finger over it.²⁰⁵ According to Neuhaus, this allows the hand to remain in a preferable position, eliminating unnecessary tension.

Neuhaus’s thoughts on the fingers may seem too pedantic, and he admits that some readers may accuse him of “chirodactylopathology.”²⁰⁶ However, Neuhaus insists that the development of the intellectual qualities of the pianist must come first. To him, the development of ear, imagination, and intellect are the most important, especially since “deficiencies of instinct” (instinct is synonymous with talent for Neuhaus) “must be made good by reason.”²⁰⁷ And yet, “if the training of the fingers, hand, arm, the whole locomotor mechanism lags behind the spiritual education, we may find that we have trained not a performer but at best a musicologist, a theoretician (one who is able to talk correctly but who is not able to demonstrate).”²⁰⁸ Neuhaus will be less judgmental towards musicologists later in his book; here, however, it is clear that he considers the education of a true artist to include much more than merely training the physical technique. His thoughts on this “spiritual education” will be elucidated in the next chapter.

²⁰⁴ Neuhaus, 147.

²⁰⁵ Neuhaus, 148.

²⁰⁶ Neuhaus, 150. This made-up term is meant to parody the overly scientific, even medical approach of other theorists.

²⁰⁷ Neuhaus, 89.

²⁰⁸ Neuhaus, 89.

Neuhaus's overall thoughts on the hand and the fingers are a combination of both the traditional and the unorthodox. The natural configuration of the hand to the piano is of great interest to him, as is the unique nature of each finger. This uniqueness leads him to have some unconventional suggestions for fingering. Though he disagrees with any pedagogy that over-emphasizes the development of the fingers, he nonetheless considers the fingers to be of great importance, and the serious pianist must give them significant consideration, though never at the expense of the pianists' "spiritual education."

Conclusion

Because the smallest components of the playing mechanism have historically created significant discussion, each of the three authors gives considerable attention to these components. Lhevinne offers specific advice on how to use the fingers and is interested in the creation of beautiful tone through relaxation of the hand. Leimer and Neuhaus both stress the individuality of each finger, noting their unique characteristics, while Neuhaus adds that any finger must be able to "replace its fellow." All three reject the excesses of the "finger school" while still advocating finger training as important. For Leimer explicitly, and the other two authors implicitly, middle ground is needed between the finger training of earlier writers and the "arm weight" emphasis of Breithaupt.

This document has now considered all the mechanistic possibilities of the human body as discussed by the three authors in their respective treatises. However, there is one additional area which must be addressed. As has been referenced multiple times in this document, each of the three authors considers strictly physical technique to be insufficient in the training of a pianist. In their own ways, they all place great importance

on items such as concentration, visualization, and general mental acumen. To Lhevinne, Leimer, and Neuhaus, these nonphysical skills are essential to successful piano playing. In the next chapter, these psychological aspects of playing will be considered under the general heading of “the mental component.”

CHAPTER FIVE

**THE MENTAL COMPONENT: THE RELATIONSHIP BETWEEN
TECHNIQUE, PRACTICE, AND THE MIND**

Introduction

The purpose of this document has been to explore the ways in which three early- to mid-20th century authors discussed aspects of piano technique. The previous three chapters were focused upon the physical components of the playing mechanism, from the larger mechanisms, such as the arm, to the wrist, hand, and fingers. However, there is one additional area which must be given consideration, as it is central to the theses of all three authors. Each of them places great emphasis on items such as concentration, discipline, focus, and perseverance as being central aspects of solid pianoforte technique. While less clearly defined than the physical components of playing, these abstract concepts may be collectively designated as the “mental component.”

The importance of the mental component is neither unique or original to these three treatises, as a number of authors both preceding and following them discuss this topic in language suitable to their own times. One of the most influential predecessors of the three authors considered in this document, Tobias Matthay, notes that “technique is rather a matter of Mind than of fingers.”²⁰⁹ Ludwig Deppe, another highly influential

²⁰⁹ Gerig, 1.

19th-century teacher who has been referenced several times, states that the “mental picture” of a work of music was essential—a concept not far removed from Neuhaus’s “artistic image.”²¹⁰ These earlier figures often discuss this aspect of pianism in a quasi-spiritual language. Later authors would speak of this in psychological terms. Two of these later authors have already been referenced: Otto Ortmann and Arnold Schultz; a third who should be mentioned is George Kochevitsky (1903-1990). These three particularly notable figures were emblematic of a larger movement which embraced a scientific view when discussing the mental, as well as the physical, aspects of piano technique.²¹¹

Ortmann was arguably the most revolutionary of these 20th-century figures, as he was the first to conduct scientific experiments to test many of the assumptions which had dominated earlier theoretical thought.²¹² His magnum opus, *The Physiological Mechanics of Piano Technique*, originally published in 1929 and reprinted in 1962, includes a chapter titled “The Neural and Circulatory System,”²¹³ which is quite brief when compared to the rest of his extensive study. This brevity is, according to Ortmann himself, because he considers his field to be primarily physiology, as opposed to psychology:

In piano-playing the whole learning and playing process is inseparably bound up with the nerves and their centres: the spinal chord and the brain. But the study of these phases is primarily a psychological problem, and I wish, so far as possible, to limit the present investigation to the mechanical and physiological fields, particularly the muscular fields. Accordingly, a brief exposition of the various

²¹⁰ Gerig, 265.

²¹¹ Gerig, 523.

²¹² Gerig, Chapter 18.

²¹³ Otto Ortmann, *The Physiological Mechanics of Piano Technique*, 2nd ed. (New York: Dutton, 1962).

parts of the nervous and circulatory systems, and their principles of operation, must suffice.²¹⁴

Ortmann, as a researcher focused primarily upon the physiology of the muscles, recognized his own limitations, and preferred to avoid generalizing about the central nervous system. And yet, as the above excerpt indicates, he also recognized how essential the brain is to mastering piano technique. At the end of the chapter, he concludes that the training of the nerves, spinal cord, and brain through repetition is an essential aspect of piano technique, that piano technique requires coordination between the various “sense-departments,” including the auditory, visual and kinesthetic, and that “Efficiency of bodily movement, including the fine movements used in piano playing, is directly connected with a particular area of the brain known as the motor area.”²¹⁵

Ortmann, operating within his own scientific context, recognizes the importance of the brain, but focuses instead on more concrete matters such as the muscles. Lhevinne, Leimer, and Neuhaus each represent a transitory epoch between the metaphysical ideas of Matthay, Breithaupt, and Deppe and the scientific approaches of 20th-century theorists. Hence, they much more readily discuss the mental components of technique, and do so in much less psychological terms, eschewing the “modern” language of Ortmann, even though he was writing more or less contemporaneously with the three authors considered here. Ideas such as “freedom,” “mental certainty” (or “uncertainty”), “the artistic image” and “critical listening” are found to some extent in *Basic Principles, Piano Technique*, and *The Art of Piano Playing*. Yet, these concepts will be addressed in different ways by

²¹⁴ Ortmann, 64.

²¹⁵ Ortmann, 71.

each of the respective authors, revealing their unique differences in thought not only with earlier and later theoreticians, but also with one another.

Lhevinne

In the 1972 forward to *Basic Principles in Pianoforte Playing*, Rosina Lhevinne insists that the Russian method of playing which she and her husband brought to the United States was more concerned with the mental aspect of technique than the physical. She stated: “Anyone who starts to study the piano must realize at once that a knowledge of music is essential to pianistic development... *technique was never a goal in itself; rather, it was only a means to express the ideas of the composer*” [emphasis hers].²¹⁶ This statement is a fitting opening to the republication of her husband’s treatise, which was nearly fifty years old at the time. In the main body of *Basic Principles*, Lhevinne is repeatedly concerned with the physical mechanisms of playing; however, he is equally concerned with the less concretely defined aspects of playing which constitute the topic of this chapter.

As discussed in prior sections of this document, Lhevinne’s thoughts on the individual mechanisms of piano technique are highly correlated to his thoughts on tone at the piano. The proper touch must be achieved by a balance of fingers, wrist, and arm in order to produce a quality tone at the instrument.²¹⁷ The “elimination of non-essentials” is an important component of achieving this touch, “so that the greatest artistic ends may be

²¹⁶ Lhevinne, v.

²¹⁷ Lhevinne, 12, Lhevinne, 18. “The adjustment of the hand and arm to conditions that produce good tone is half the battle.”

achieved with the simplest means.”²¹⁸ What, precisely, the “elimination of non-essentials” means is dependent upon the reader’s interpretation; however the implication is that this includes both interpretive and technical components. Equally important to this simplicity is the pianist’s mental conception of the tone which he desires to produce: “...every piano student who aspires to acquire a beautiful tone must have a mental concept of what a beautiful tone is.”²¹⁹ According to Lhevinne, this mental imaging is an essential practice for any pianist who wishes to achieve the highest level of artistic integrity.

Lhevinne is very explicit about this mental acumen in Chapter V of *Basic Principles*. Under the heading “Accuracy in Playing,” he succinctly summarizes his opinion on the importance of the mind: “Why is so much playing inaccurate? Largely because of mental uncertainty.”²²⁰ Lhevinne illustrates this by suggesting an experiment: “Take your simplest piece and play it at a normal tempo. Keep your mind upon it, and inaccuracy disappears. However, take a more ambitious piece, play it just a little faster than you are properly able to do, and inaccuracy immediately appears.”²²¹ Lhevinne is adamant about this, bluntly stating: “That is the whole secret. There is no other.”²²² The implication here is that a pianist’s ability, or inability, to play a piece at a specific tempo is a direct reflection of how well they know they piece; that is, how “certain” they are about it. This short passage clearly illustrates Lhevinne’s strong belief in the necessity of mental certainty for accurate playing.

²¹⁸ Lhevinne, 12.

²¹⁹ Lhevinne, 17.

²²⁰ Lhevinne, 33.

²²¹ Lhevinne, 33.

²²² Lhevinne, 33.

Lhevinne also frequently admonishes students for not listening to themselves and for unfocused practice habits, two concepts which are inextricably linked to one another. He unequivocally states: “Most students hear, but they do not listen. The finest students are those who have learned how to listen.”²²³ Listening with a self-critical ear is essential for constructive practice. Any worrying or distractions while practicing are destructive; the mind must be focused “every minute... or the value of your practice is lessened enormously.”²²⁴ Perhaps most crucially of all, while discussing the development of a good legato touch, he declares that “inattentive playing” is unacceptable, especially if done for hours on end.²²⁵ In summary, Lhevinne believes that “if it [technique] means nothing more to you than making machines of your hands,” it is “worthless in your playing.”²²⁶

Throughout the text, it is clear that Lhevinne considers the mental component of pianism to be as important as the physical. Mental imaging, certainty as a guarantor of accuracy, critical listening, and focused practice are all crucial aspects of holistic artistry for him. Both the mental and physical aspects must be integrated for the creation of a convincing interpretation.

Leimer

Intense mental concentration was a hallmark both of Walter Gieseking’s playing, and Karl Leimer’s method of instruction.²²⁷ Both volumes of *Piano Technique* abound in

²²³ Lhevinne, 11.

²²⁴ Lhevinne, 44.

²²⁵ Lhevinne, 39.

²²⁶ Lhevinne, 39.

²²⁷ Gieseking reference (from Oxford) here

examples of this intensity. In the foreward, Giesecking states that “the Leimer method” emphasizes the importance of training a pupil “how to hear himself.”²²⁸ In the introduction which follows, the musicologist and author James Francis Cooke specifically mentions Leimer’s “elimination of the unnecessary “as one of the most important qualities of his instruction.”²²⁹ This is emblematic of Leimer’s approach, and much like Lhevinne’s “elimination of non-essentials,” Leimer’s “elimination of the unnecessary” encompasses both physical and psychological components.

The above statements from both Giesecking and Cooke are supported from the very opening passages of Leimer’s work proper. The first section of Chapter I is titled “Training of the Musical Ear,” and its central focus is upon critical listening. “The chief point in which my method of teaching differs from that of others... is the training of the ear. Most pianists have not the faculty of hearing themselves correctly.”²³⁰ Later in the treatise, Leimer reiterates this point by claiming that he has, in fact, never encountered a single student who knew how to properly hear themselves before working with him.²³¹ Of equal importance to Leimer is the concept of visualization, a term which he uses to imply both score study and audiation. As has been mentioned previously, Leimer’s concept of visualization as a means of both memorizing and truly understanding a piece of music is recurrent throughout his writing. Using a Lebert and Stark etude as an example, Leimer claims that this method is so successful that his students can notate an entire composition from memory after only fifteen minutes of study.²³²

²²⁸ Leimer, 5.

²²⁹ Leimer, 7.

²³⁰ Leimer, 10.

²³¹ Leimer, 20.

²³² Leimer, 18.

The deep level of intense concentration advocated by Leimer naturally creates highly specific parameters for a student's practice. Slow practice is repeatedly suggested,²³³ and students are forbidden to practice for more than 15 to 20 minute increments at a time.²³⁴ They are also encouraged to embody tranquility in their motion at the instrument, eliminating "unnecessary movements."²³⁵ Leimer fittingly ends the first volume of the treatise by entreating students to concentrate and listen unceasingly with their "inner ear."²³⁶ Without this intensity of concentration, technique is meaningless; as a result, there is an enormous difference between a pianist who has given proper consideration to the "note-picture"²³⁷ and one who has not, who simply has something "under their fingers."²³⁸ All of this exemplifies the level of concentration which Leimer advocates for pianists, as well as the connection between tranquility of movement and focus of the mind.

This discussion of the so-called "note picture" comes from the second chapter of the second volume, titled "Technique Through Mental Work." This particular section of *Piano Technique* is perhaps the most explicit regarding Leimer's connection of the physical and mental aspects of playing. Several specific exercises are included, which exemplify how "finger control" is achieved through "continuous concentration."²³⁹ The first consists of playing the first of Bach's Two-Part Inventions at an extremely slow tempo: 70 for the sixteenth note. If this is done, according to Leimer: "The brain matter

²³³ Leimer, 26, 41.

²³⁴ Leimer, 48.

²³⁵ Leimer, 58.

²³⁶ Leimer, 59.

²³⁷ Leimer, 90.

²³⁸ Leimer, 90.

²³⁹ Leimer, 90.

must now function as a control for the most correct finger execution... This exercise will train the ear to such an extent that in a few days the pupils will hear more exactly and better.” This type of exercise is particularly important to Leimer, as according to him pianists in general do not know how to properly use “brain work” to improve technical skill.²⁴⁰ Without this prerequisite “brain work,” Leimer claims that “a feeling of unsteadiness prevails, which tends to excite the nerves... Stage fright is the outcome of it all.”²⁴¹

According to Leimer, the exercise of the Bach Invention, as well as the others contained in “Technique Through Mental Work,” will help students to quickly develop mental acumen, and, consequently, better technique.²⁴² The intensity of Leimer’s approach is exemplified by his assertion that: “If these exercises are carried out six or eight times daily, under the guidance of the teacher (whom you visit at least three times a week) rapid progress will be the reward. Patience and concentration are the most important thing.”²⁴³ As always for Leimer, relaxation of the muscles is also essential: “Pupils will be surprised to learn that through relaxation, they will gradually be able to play evenly, in a faster tempo, with an ease unknown to them a short while before.”²⁴⁴ This relaxation, combined with repetition and concentration, will allow students to progress quickly.

²⁴⁰ Leimer, 90.

²⁴¹ Leimer, 90.

²⁴² Leimer, 91-92.

²⁴³ Leimer, 92.

²⁴⁴ Leimer, 92.

Leimer's goal regarding the motion of the body is always the elimination of unnecessary motion,²⁴⁵ and this can also be said of his approach to developing the mental component of piano technique. According to him, the intense concentration which he advocates will serve as the quickest way to develop technique, and also eliminate the need for finger exercises or other drills which he considers to be "superfluous."²⁴⁶ For Leimer, as with Lhevinne, it is clear that the intellectual components of musicianship must take precedence over purely mechanical considerations.

Neuhaus

Personal associates of Neuhaus frequently described the deep thoughtfulness with which he approached not only pianism, but also ordinary everyday life. In the introduction to *The Art of Piano Playing*, editor K.A. Leibovitch describes him thusly: "Seldom have artistic gifts been so closely matched by the qualities of selfless devotion, deep humanity, true culture and a great capacity for bestowing and winning friendship."²⁴⁷ These qualities, particularly the "humanity" and "culture" described by Leibovitch, are embodied in Neuhaus's teaching in the form of what he refers to as the "artistic image," a term so essential to the text that he refers to it on the very first page.²⁴⁸

The exact definition of the "artistic image" is somewhat nebulous, and Neuhaus describes it in various ways throughout the text. From the beginning, however, he consistently considers it to be essentially linked to technique, and a prerequisite for

²⁴⁵ Leimer, 58.

²⁴⁶ Leimer, 92.

²⁴⁷ Neuhaus, x.

²⁴⁸ Neuhaus, 1.

successful piano technique. For Neuhaus, many errors occur because pianists place mastery of the instrument over emphasis on the artistic image.²⁴⁹ He goes on to say that “the clearer the goal [of the artistic image]... the clearer the means of attaining it.”²⁵⁰ This is followed by an illustrative, if lengthy, section explaining what the “goal” should truly be, and how technique is related to it:

My method of teaching, briefly, consists of ensuring that the player should as early as possible (after a preliminary acquaintance with the composition and mastering it, if only roughly) grasp what we call ‘the artistic image’, that is: the content, meaning, the poetic substance, the essence of the music, and be able to understand thoroughly in terms of theory of music (naming it, explaining it), what it is he is dealing with. A clear understanding of this goal enables the player to strive for it, to attain it and embody it in his performance; and that is what ‘technique’ is about.²⁵¹

The interrelation of technique and the “artistic image” is embodied in two pianists Neuhaus considers to be among the greatest of all time: Franz Liszt and Neuhaus’s own student, Sviatoslav Richter. Their practicing reveals little distinction between working on technique and working on the music itself.²⁵² Richter, as Neuhaus’s most visible student, is praised frequently in the text, often more for his mental skills than his pianistic ones. Neuhaus considers Richter to be an exemplar of someone with an extraordinarily strong artistic image.²⁵³ Later in the work, he states that Richter is the preeminent pianist of a “younger generation” which includes Emil Gilels (another student of Neuhaus), Arturo Benedetti Michelangeli, and Friedrich Gulda.²⁵⁴ In addition to Richter, Neuhaus also references the teaching of his own instructor, Leopold Godowsky, who rarely discussed

²⁴⁹ Neuhaus, 1.

²⁵⁰ Neuhaus, 2.

²⁵¹ Neuhaus, 2.

²⁵² Neuhaus, 3.

²⁵³ Neuhaus, 8.

²⁵⁴ Neuhaus, 214.

technique in lessons, choosing to focus upon the musical content of a composition instead.²⁵⁵ When Godowsky did mention technique, he was focused almost entirely upon “complete freedom.”²⁵⁶

This emphasis on “complete freedom” is something also found in both Lhevinne and Leimer. Another commonality is Neuhaus’s emphasis on simplicity and naturalness in expressing music; this, according to Neuhaus, is the source of true beauty.²⁵⁷ The only way to develop an appreciation for beauty, however, is to fully develop students not strictly as musicians, but also as intellectuals and artists.²⁵⁸ This concept of “spiritual development” is nearly as recurrent in Neuhaus as the concept of the “artistic image.” “Spiritual freedom,” for Neuhaus, is a prerequisite of the “physical freedom” that was emphasized by Godowsky.²⁵⁹ In fact, this spiritual aspect of the music is so important to Neuhaus’s conception of technique that “if the training of the fingers, hand, arm, the while locomotor mechanism lags behind the spiritual education,” a performer cannot be trained.²⁶⁰ The spiritual training achieved through piano lessons is such that every student, regardless of motivation, can benefit. Regarding “unenthusiastic” students, Neuhaus admits that he would never make pianists out of them.²⁶¹ Nonetheless, he still believes that he has a duty to these students: “I would still, by means of music, by injecting into them the bacillus of art, drag them some way up into the realm of spiritual

²⁵⁵ Neuhaus, 12.

²⁵⁶ Neuhaus, 13.

²⁵⁷ Neuhaus, 24.

²⁵⁸ Neuhaus, 20-21. Neuhaus provides an extensive list of what needs to be done to help develop a students’ intellectual and spiritual qualities.

²⁵⁹ Neuhaus, 73.

²⁶⁰ Neuhaus, 89.

²⁶¹ Neuhaus, 88.

culture and would help them to develop their best spiritual qualities.”²⁶² Neuhaus clearly believed that all students could benefit from music lessons, and he considered it his solemn duty as a teacher to educate them regardless of their levels of ability.

In several places, Neuhaus also expounds upon the idea of “freedom” advocated by Godowsky. The second section of the chapter on technique is titled “Confidence as the Basis for Artistic Freedom,” and contains a pithy definition of what Neuhaus considers freedom to be: “Freedom is the antithesis of arbitrariness, the enemy of anarchy, just as the ancient Greeks held cosmos to be the enemy of chaos...”²⁶³ Expounding from the chapter’s title, Neuhaus claims that confidence is the “prerequisite of freedom,” and discusses this at length:

Since confidence is the prerequisite of freedom, it is confidence that one should stubbornly strive for, first of all. Many inexperienced players suffer from an inherent timidity, a sort of ‘pianophobia’ which manifests itself thus: they frequently play wrong notes, make many unnecessary movements, are often stiff, do not know how to use the natural weight of the hand and arm (they hold their arm ‘suspended’ in mid-air), in short, they show all the signs of insecurity with its unpleasant consequences. And although it may seem that this insecurity is purely physical, a question of mobility, you can take it from me it is always first of all psychological.²⁶⁴

Neuhaus finishes this lengthy section by reminding readers that these issues are not the cause of deficiencies in technical skill, and that a proper psychological (spiritual) “re-education” is necessary to help students overcome these faults.²⁶⁵

²⁶² Neuhaus, 88.

²⁶³ Neuhaus, 88.

²⁶⁴ Neuhaus, 88.

²⁶⁵ Neuhaus, 88.

Conclusion

The three treatises have a considerable amount in common regarding the mental aspect of piano technique, although the terminologies which they use often differ. The overall conception of a musical work is essential for all three authors, as is the necessity of mental fortitude and concentration. Though the word “courage” is not used, it is implied as an integral component of this fortitude; in fact, problems in technique can sometimes be attributed to a performer’s lack of courage. Freedom, relaxation, and elimination of the “unnecessary” (“non-essentials” for Lhevinne) are also essential components for all three authors.

A more thorough comparison will take place in chapter 6. For this chapter, it suffices to say that, despite differences in vocabulary, Neuhaus, Leimer, and Lhevinne all present similar ideas regarding the mental component of piano technique. Each of them regards the training of the mind to be at least of equal importance to the training of the physical playing technique, and pianists who are trained in the latter, but not the former, will inevitably have problems in their playing.

CHAPTER SIX

COMPARATIVE ANALYSIS AND CONCLUSIONS

Introduction

This paper has explored the ways in which three authors of the 20th century's most important piano treatises discussed technique. In the preceding chapters, the thoughts of Josef Lhevinne, Karl Leimer, and Heinrich Neuhaus were considered primarily individually, with occasional comparisons between them. In this concluding chapter, the authors' thoughts are more intensely examined and compared as a means of seeing what ideas are held in common, what ideas are contradictory, and what ideas are unique to a particular author. It shall be shown that, in general, all three authors agree on the importance of the mental component of technique, as well as "looseness" at the keyboard, and eliminating unnecessary movements. The two Russian authors, Lhevinne and Neuhaus, have particular similarities, whereas Leimer's uniquely analytical approach sets him somewhat apart. All three also have notable areas of disagreement, which will be discussed in the succeeding sections.

This chapter also contains a discussion of the relevance of the three treatises to contemporary piano teaching. While there are certain concepts discussed by the authors that are outdated, there is still important information contained in each treatise that may be of great benefit to serious teachers and pianists. Of particular interest is Neuhaus, who,

of the three, arguably provides the most relevant information. The chapter concludes with suggestions for further research.

Comparative Analysis

When considering the three treatises in comparison with one another, three particular items need to be addressed. The first item consists of the overarching areas of agreement shared by all three authors: namely, the importance of the mental component, relaxation, and elimination of unnecessary movements. The second item is the shared lineage of the two Russian authors, Lhevinne and Neuhaus, who have more in common with one another than with Leimer. The final item is a consideration of Leimer himself, whose unique writing style sets him somewhat apart from his Russian counterparts.

Areas of Agreement

There are several areas of agreement shared between the three authors. Perhaps the most evident of these is their mutual assent regarding the centrality of the mental component. As was discussed thoroughly in chapter 5 of this document, all three authors emphasize the importance of this area so strongly that it constitutes one of the most persistent themes of all three treatises. Leimer's *Piano Technique*, for instance, is marked by its repeated emphasis on focus and concentration. Visualization is an essential part of Leimer's teaching strategy, a term which he uses to incorporate practice techniques including audiation and silent score study. An entire section of the second volume of

Leimer's work is titled "Technique Through Mental Work," wherein he suggests that "brain work" can overcome technical problems caused by fear.²⁶⁶

Meanwhile, in *The Art of Piano Playing*, Neuhaus uses the figure of his own teacher, Godowsky, to exemplify his beliefs on concentration. Godowsky's flawless technique seemed to be effortless and yet his face was reported to contort while playing, due to the intensity of his concentration. This illustrates the importance of what Neuhaus calls "spiritual energy," which is the source of all true technique. Indeed, in *The Art of Piano Playing*, Neuhaus even goes so far as to occasionally downplay the importance of physical technique, emphasizing instead the need for creative problem solving,²⁶⁷ confidence,²⁶⁸ and "dogged patience."²⁶⁹ Most important to Neuhaus is the integrity of the pianist's "artistic image," which must be cultivated through a pianist's "spiritual education," and has a correlation with Leimer's idea of a "note-picture."

Neuhaus also agrees with Leimer that "fear of the instrument" can have a direct impact upon technique, and insists that students embrace confidence as "the basis of artistic freedom." Lhevinne shares this belief with both authors. He, too, regularly emphasizes the mental aspect of pianistic playing, going to far as to claim that "moods" can be "thought" into one's fingers. Neuhaus's aforementioned belief in "confidence as the basis of artistic freedom" is echoed by Lhevinne in his own words: "Why is so much playing inaccurate? Largely because of mental uncertainty... Keep your mind upon it, and inaccuracy disappears."²⁷⁰

²⁶⁶ Leimer, 90-92.

²⁶⁷ Neuhaus, 121.

²⁶⁸ Neuhaus,, 88

²⁶⁹ Neuhaus, 123.

²⁷⁰ Lhevinne, 33.

Lhevinne also relates the importance of critical listening and considers a lack of self-hearing to be a major weakness in many pianists. Leimer, whose entire method is based upon the training of the ear, thoroughly agrees with Lhevinne in this aspect, stating that “Most pianists have not the faculty of hearing themselves correctly.”²⁷¹ For Leimer, critical listening must be matched by the training of the “inner ear,” underscoring his belief in the essential role played by concentration in piano technique. Comments to this effect are found throughout his treatise and in those of Lhevinne and Neuhaus. These types of statements reflect the fact that all three authors clearly consider the mental component of piano playing to be at least equal to the physical component.

Another area in which all three authors agree is the general subject of relaxation. The authors’ usage of the word “relaxation” generally refers to various muscles involved in the playing mechanism; the terms “looseness,” or “freedom” are used somewhat interchangeably. However, these terms are also used to encompass more than just physical relaxation, with the word “freedom” being particularly utilized by Neuhaus to reference his conception of the mental components. In each of the four preceding chapters, the authors have been quoted on the importance of relaxing the fingers, hands, wrists, arms, and body in general. Lhevinne advocates a “floating” feeling in the upper arm and forearm, looseness in the wrist (the “natural shock absorber”), and an extremely “loose, floating hand.” Leimer made his students relax their arm muscles in the very first lesson, emphasizing that the arm must be loose for the fingers to react properly. The fingers themselves must also be relaxed, and Leimer also emphasizes relaxation in the wrist (though not to the point of “breaking down”). Neuhaus advocates a feeling of “dead

²⁷¹ Leimer, 10.

weight” in the arm and expresses his surprise that even conservatory-level students cannot cultivate that feeling. Additionally, he insists that there is “no contraction, no ‘freezing’ or stiffening anywhere” in the wrist or arm. The theme of “freedom,” whether physical or mental, is recurrent throughout his treatise.²⁷²

Related to relaxation, looseness, and freedom is the importance of eliminating unnecessary movements. Leimer concludes the first volume of his treatise with a warning against such movements under the heading “Tranquility in Movement”: “All unnecessary movements should be eliminated.”²⁷³ Lhevinne advocated a certain amount of simplicity in both interpretation and movement, claiming that the “elimination of non-essentials” is extremely important. According to Neuhaus, when a pianist has “confidence as a basis for freedom,” they will no longer make these “unnecessary movements.” Additionally, he says that students should practice in such a way so that they make “only the movements which are absolutely essential.” Finally, Neuhaus states that “simplicity” and “naturalness of expression” creates beauty in performance. Although the terminology may differ between the authors, there is clear agreement that unnecessary movements are a hindrance to pianists.

In summary, there are three primary areas of agreement between the authors: the centrality of the mental component, the necessity of muscular relaxation, and the elimination of the unnecessary, both in movement and expression. The specific vocabulary differs between them, but in all three of these areas Lhevinne, Leimer, and Neuhaus are essentially in agreement.

²⁷² See Neuhaus, 88.

²⁷³ Leimer, 58.

The Influence of the Russian School: Neuhaus and Lhevinne

Of the three treatises, the two which generally have the most in common with one another are the Neuhaus and the Lhevinne. This is almost certainly due to the common lineage of both authors. Although Lhevinne was fourteen years older than Neuhaus, they were both trained in the musical circles in Moscow and St. Petersburg of the latter half of the 19th century. These musical circles were guided under the enormous influence of Anton Rubinstein, who was widely revered as a sort of “godfather” of art music in Russia. Rubinstein is referenced multiple times by both Neuhaus and Lhevinne, generally in such a way to recognize his absolute authority on anything relating to the piano, or music in general. Leimer, with his German background, rarely references Rubinstein, and does so only in passing.²⁷⁴ Leimer also generally avoids praising any singular individual the way Neuhaus and Lhevinne do, though he does respectfully reference other instructors.²⁷⁵

The high esteem of Anton Rubinstein shared by Lhevinne and Neuhaus relates to another commonality within the two Russian treatises, which is entirely lacking in the German one; namely, the emphasis on the spiritual component of music. It has been mentioned earlier in this document that Lhevinne is generally the most “metaphysical” of the three authors, but Neuhaus often speaks of music in quasi-religious terms, as well. The very first chapter of *The Art of Piano Playing* contains several admonishments to the

²⁷⁴ Leimer, 19. Rubinstein is briefly quoted by Leimer, without any of the laudatory descriptors found in the Russian texts.

²⁷⁵ Leimer, 106. Among the teachers praised for their “progress” are Ludwig Deppe, Deppe’s student Elisabeth Caland, who was primarily responsible for preserving Deppe’s methods, and Rudolph Maria Breithaupt, who he nonetheless chides for going “too far.”

hopeful pupil, touting the importance of spiritual qualities: “It is not by accident that all outstanding musicians, composers and performers, have always been noted for their broad spiritual outlook, and have shown a very lively interest in all questions affecting the spiritual life of humanity.”²⁷⁶ Neuhaus was, of course, writing in the Soviet era of state atheism, and on a personal level he generally expressed an attitude of skepticism to organized religion.²⁷⁷ Nonetheless, the pervasive influence of the Russian Orthodox Church had a deep effect on daily life and the personal lives of a number of musicians in Neuhaus’s circle, exemplified most notably by the spirituality of composers including Stravinsky, Rachmaninov, and Rubinstein himself. This spirituality indirectly seems to have had an influence on Neuhaus as well as Lhevinne, and this is a component which is wholly absent in the writing of Leimer.²⁷⁸

Leimer as Stylistic Outlier

Leimer’s approach to pianism is overall more analytical and straightforward than either Neuhaus or Lhevinne. Stylistically speaking, metaphors are generally eschewed, as Leimer prefers to describe the process of mastering the piano in a prosaic manner. This does not mean that he is without opinions or without feeling; indeed, as Leimer himself states: “many people assert that in music feeling must predominate over the brain. In my opinion, however, a convincing interpretation can be acquired only when both are

²⁷⁶ Neuhaus, 28.

²⁷⁷ Razumovskaya, 35-36.

²⁷⁸ Razumovskaya, 92. A considerable portion Chapter 3 of Razumovskaya’s biography is spent discussing the influence of the Russian Orthodox’s concept of *sobornost’* and its permeating influence on Russian aesthetics

combined.”²⁷⁹ Still, it is difficult for a reader to try to understand his lengthier discourses, particularly when he provides narrative-style analyses of musical works which simultaneously discuss harmony, rhythm, theory, technique, and fingering—sometimes in the same sentence. An illustrative passage in this Leimer’s style is his discussion of the Allemande in E major by Bach. This single paragraph spans full four pages and consists solely of prosaic analysis. The following is an excerpt from this section:

Key—E major. Time 4/4. Count loudly and shortly. The first measure for the right hand consists of chord tones of the E major triad with two passing notes in the following manner: After the up-beat B, the E major triad follows, starting with g-sharp, a as passing note; chord tone b, chord tones e’ e’ e’, f-sharp as passing note, e’’. Then follows the exact repetition of the first half of the measure. The left hand begins on the second eighth note and consists of the E major tones in eighth notes: e, g-sharp, b, e’ and repetition of the E major triad. The second measure for left hand begins with e’ and for right hand with g-sharp’. When studying these measures, we commonly close with the first tone of the ensuing measure in order to impress ‘position and fingering’ with absolute certainty.

This dense, almost impenetrable analysis continues for four pages. Even in the most analytical sections of Lhevinne or Neuhaus, there are illustrative metaphors or poetic phrases that break up the text. The analytical approach of Leimer applies also to his discussion of the various “touch-types,” or, in the original German, “Anschlagen.” Coordination of the various muscles of the arm and hand is essential, and the various combinations, or “connective possibilities,” are considered in great detail by Leimer. This is in contrast to Lhevinne and Neuhaus; while they also consider the various components of the larger mechanism to be indelibly linked, they do not engage in an exhaustive listing of “connective possibilities” to the extent Leimer does.

²⁷⁹ Leimer, 44.

Important Differences

While there are significant areas of agreement between the authors, it is unsurprising that such strongly opiated individuals also have ideas that are unique to them. To begin with Lhevinne, it is clear that he conceives piano-playing in the most metaphorical sense. This contrasts especially with Leimer, who, as exemplified in the above excerpt, is highly analytical in his approach. Neuhaus, meanwhile, shares Lhevinne's spirituality and predilection for metaphor, but also offers specific advice and goes to greater detail to explain his allegorical language. Lhevinne's metaphors are both left open to the reader's interpretation and more axiomatically stated. An example of this is Lhevinne's suggestion that wrists are "human shock absorbers," or the comparison of delicate playing with "Cluny lace." In both instances, it is largely left up to the reader to infer what Lhevinne is trying to say. Related to this brevity, Lhevinne also tends to be highly unequivocal in his statements, speaking with great certainty and often in truisms about practice regimen, the nature of music, and the importance of concentration. Finally, Lhevinne speaks most frequently about the production of "good tone," which he claims can be affected by things such as the size of the pianist's hand. Both Leimer and Neuhaus are also concerned with tone, but less convinced of the role in which the "fleshiness" of a type of hand plays in creating that tone.

Stylistic differences between Leimer and the other two authors were considered in the previous section, but there are more substantive ideas which are unique to Leimer. Perhaps most notable is his contrarian point of view regarding the wrist, which he considers to be over-emphasized. Leimer also speaks against overcurving of the fingers, and considers finger exercises to be "superfluous," in direct contrast to the Russian

school that trained Lhevinne and Neuhaus. Leimer's whole conception of technique as various "Anschlagen," or "modes of touch," also gives him a different perspective. While all three authors consider technique as being a holistic mechanism, Leimer categorizes the different "touches" as "connective possibilities" that combine the various parts of the arm. This does not have any direct correlation in either Lhevinne or Neuhaus. Finally, Leimer's anatomical discussions place him closest in methodology to the scientific approaches of contemporaneous researchers such as Ortmann and Schultz; in his opinion, the neurological mechanism of the human body is such that the brain's impulses can only reach the fingers properly if the arm is relaxed.

Neuhaus, in his work, takes an almost direct stance against Leimer's analytical approach, criticizing individuals who overanalyze the motions of the arm. Though he himself alludes to his own tacit approval of forearm rotation, he speaks passionately against the "superinators and pronators," considering dry anatomical analysis to be unnecessary. Concerning the wrist, Neuhaus gives the most direct suggestions regarding arpeggios, and argues that smoothness is essential as much as the looseness upon which all three of the authors agree. The nonphysical components of piano playing are perhaps where Neuhaus's ideas are most idiosyncratic. Neuhaus frequently returns to the "artistic image," which, as noted, has some type of correlation with Leimer's "note-picture." However, Neuhaus's conception implies a more thorough and complete understanding of a piece of music than Leimer's. Leimer conceives of the "note-picture" as a prosaic narrative, exemplified by the excerpt in which he describes a Bach Allemande in analytical terms. Neuhaus's "artistic image" goes further than this, incorporating each aspect of the pianist's overall "spiritual education" into this concept.

Another area in which Neuhaus goes further than the other authors is the subject of “freedom.” All three authors discuss “freedom” in some capacity, but that term occurs most often in Neuhaus, who considers true freedom—artistic freedom—to be derived from confidence. Fear of the instrument, to Neuhaus, is the cause of much inaccuracy in playing. This is conceptually similar to Lhevinne’s idea that “mental uncertainty” is the cause of inaccuracy, but Neuhaus’s solutions to the problem have implications that are both broader and deeper than Lhevinne’s. For Neuhaus, the prevention of inaccuracies comes from the life-long “spiritual education” and sharpening of the “artistic image,” both of which will cultivate long-term “artistic freedom” for the performer. Lhevinne’s recommendation to practice slowly is similarly focused on the pianist’s need to concentrate, but the relative simplicity of his solution suggests that his conception of the inaccuracy problem is less comprehensive than Neuhaus’s.

Relevance to Modern Teachers

In considering the relevance of the three treatises in a contemporary setting, it must be remembered that the social differences between the era of their composition and the present day are vast. Lhevinne, Leimer, and Neuhaus each represent a late-Romantic formulation of pianism and musical thought which was even being challenged in its own time, particularly through the work of Ortmann and others. While technical problems are discussed by the authors, the underlying attitude which seems to permeate all three of them is that the “talented” student will be able to overcome any technical issues by the intensity of their mental concentration, the attentiveness of their listening, and their determination to properly execute a passage. This frame of understanding would be

considered unhelpful in the light of contemporary research in piano pedagogy. Though there may be truth in the exploratory approach implied by this framing, contemporary writings on piano technique are generally more concrete in their presentation of material.

Lhevinne

Lhevinne's treatise, *Basic Principles in Pianoforte Playing*, contains many instances of truisms and blunt statements, often with little supporting evidence. This is partly due to the brevity of the overall text, but may also be a result of his natural proclivity at the instrument; the naturalness of Lhevinne's talent was noted by many of his contemporaries, and exemplified in an exchange between Lhevinne and Josef Hofmann. The latter was once boasting about his newly discovered approach to octaves, but Lhevinne, whose octave technique was remarkably clean, showed little interest. Hofmann asked Lhevinne how he solved this technical issue, to which Lhevinne simply replied: "I play octaves."²⁸⁰ This humorous anecdote reveals much about Lhevinne's overall approach to technique, and perhaps underlies why he provides so little supporting evidence in his treatise. This becomes particularly problematic in Lhevinne's discussions of tone, as was discussed in chapter 3.

Nonetheless, there is still material in *Basic Principles* that may be of interest and benefit to teachers. Lhevinne's analysis of the wrist as "natural shock absorbers," and suggestion that the fingers be played primarily from the metacarpal joint are unique and helpful. The latter suggestion also includes a diagram to help illustrate the point. His thoughts on mental practice—while presented as axioms, and unsupported in his own

²⁸⁰ Wallace, 227.

document—would be corroborated by later research of Ortmann and Schultz, and hence still have merit. Finally, Lhevinne’s document has particular value as an historical document. As Lhevinne is the most highly regarded of the three authors as a pianist *per se*, his writing is of unique interest to performers, as it allows a small window into the mind of one of the 20th century’s most influential and respected concert artists. It also provides insight into the Russian pianistic tradition, which he and his wife Rosina would advocate through their teaching at the Juilliard School.

Leimer

Leimer’s treatise, *Piano Technique*, is the densest of the three; as has been discussed, the prosaic style makes him particularly difficult to read and assimilate. The second volume of the treatise, in particular, is extremely dry and sometimes consists of listings of musical terms, or lengthy descriptions of musical passages. The information in these sections is valuable, but the style is so analytical that many teachers and students may find it unapproachable. This may be partly due to an obsolete translation; the most current translation dates from the 1930s. Another problem of translation is the recurrent word “Anschlag,” which, as has been discussed, encompasses more than the English word “touch,” to which it has been translated.

If teachers can look beyond the prosaic nature of the text, there is much that can be learned from *Piano Technique*. The intensity of focus suggested by Leimer has been noted multiple times in this document, and is arguably the most notable feature of his treatise. Leimer uses the term “visualization” to encompass many aspects of mental practice, including score study and what teachers today would term audiation. The

intensity of concentration, of pianists learning to “hear themselves properly,” and of “technique through mental work” is helpful to teachers seeking to train their students to audiate for themselves, and to know a piece more reliably than what superficial “muscle memory” can allow. Leimer also suggests that beginners take multiple lessons per week, a suggestion that may be of particular benefit to teachers who work with young students, for whom repetition of material is essential.

Neuhaus

It has been remarked already that Neuhaus’s work, *The Art of Piano Playing*, continues to exert considerable influence, and that the figure of Neuhaus has generated the most scholarly research of the three. It is unsurprising, then, that Neuhaus’s treatise is the most accessible of the three, and arguably contains the most relevant material for modern pianists and piano teachers. Neuhaus’s writing does, like that of his contemporaries, contain the issue of emphasizing “talent,” sometimes at the expense of offering solutions; yet, unlike the others he discusses the importance of accessibility in music education and does sometimes offer practicable solutions to technical problems. Although Neuhaus does not go to the level of detail that more recent authors might have, he nonetheless gives unique and helpful advice that teachers and performers alike will find beneficial.

In addition to his practical ideas, one of the great attractions of Neuhaus’s work is the charm of his writing style. As has been mentioned, *The Art of Piano Playing* is full of his sardonic humor, and despite Neuhaus’s legendarily volatile temperament, the book also contains a great deal of genuine warmth and sentiment. It has been noted that both

Neuhaus and Lhevinne tend to utilize maxims or aphorisms. However, unlike Lhevinne, Neuhaus's presentation is more authoritative than authoritarian. Neuhaus's aphorisms are generally preceded or followed by explanatory material; consequently, they read as pieces of helpful advice from an expert who has dedicated much thought to a subject, as opposed to truisms from one individual for whom they seem self-evident. The chapter on rhythm, for instance, begins and ends with the quote: "In the beginning, there was rhythm."²⁸¹ While this seems like a surface-level cliché, Neuhaus spends the intervening twenty-two pages between the two statements of the phrase expounding upon it, so that, by the end of the chapter, the reader feels sufficiently convinced of both the truth of the phrase itself and Neuhaus's reasoning behind it. As a devoted reader of Hegel, Kant, and especially Nietzsche, it is understandable that Neuhaus would be particularly concerned with explaining his logical process to his reader.

Future Research

One particular area of future research would be further comparison between these treatises and others contemporaneous works. Possibilities may include the Cortot treatise, *Rational Principles of Pianoforte Technique*, though the exercise-based nature of this work may make such analyses difficult. Perhaps the most interesting comparison would be between one or several of these treatises with the work of Otto Ortmann or Arnold Schultz. Their analytical approach has been referenced several times in this work, and was written around the same time as the works of Lhevinne, Leimer, and Neuhaus.

²⁸¹ Neuhaus, 31, 53.

The work of Luigi Bonpensiere (1876-1944), while not referenced in this document, would also make for an interesting comparison. Bonpensiere's *New Pathways to Piano Technique* is referenced by Gerig²⁸² as a particularly intriguing study which focuses on the "relations between the mind and the body."²⁸³ As Lhevinne, Leimer, and Neuhaus each have strong opinions on the importance of the mental component of piano playing (see chapter 5), a comparison of their thoughts on the mental component with Bonpensiere could be as interesting as a comparison of their thoughts on the physical component with Ortmann and Schultz.

Regarding the authors, it is evident that there are particular holes in literature related to Leimer. Both Neuhaus and Lhevinne have extensive, high-quality biographies dedicated to them; Leimer lacks even an entry in the Grove Dictionary. More research in to the life of Karl Leimer would be of great benefit to piano historians and teachers everywhere. Finally, also relating to Leimer, an updated translation should be done of *Piano Technique*. There are a number of words and phrases from the older translation which do not seem idiomatically correct—the usage of the word "touch" to translate "Anschlag" is of particular note.

Final Conclusion

This paper has sought to serve as a comprehensive overview of three highly influential 20th-century piano treatises: *Basic Principles in Pianoforte Playing* by Josef

²⁸² Gerig, 464.

²⁸³ Luigi Bonpensiere, *New Pathways to Piano Technique: A Study of the Relations Between Mind and Body with Special Reference to Piano Playing*, ed. Maria Bonpensiere (New York: The Philosophical Library, 1953).

Lhevinne, *Piano Technique* by Karl Leimer (with minor contributions by Walter Gieseking), and *The Art of Piano Playing* by Heinrich Neuhaus. In their own way, each of these writings encapsulates not only the technical and pedagogical thoughts of an important teacher, but also the aesthetic underpinnings of their cultural backgrounds. Though the writers differ in notable specific opinions, their shared beliefs in mental acuity, freedom from physical tension, and the importance in eliminating “non-essentials” all reveal a consistency of thought in early- to mid-20th century pianistic theory.

These areas of agreement have deep implications for the modern pianist and piano teacher. While it is true that, when considering all three treatises, Neuhaus is the most accessible and likely the most beneficial to the modern piano teacher, they all nonetheless contain valuable insights. Lhevinne, Leimer, and Neuhaus were some of the most successful and respected pedagogues of the 20th century, and their thoughts on both technique and general musicianship still have merit today. The most serious pianists, and the pedagogues who work with them, will find worthwhile material in each of these treatises, and they should continue to stimulate significant thought and discussion by performers and teachers alike.

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