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## **When the mouse meets the elephant : a manual for string bass players with application of the philosophy and principles of the F. M. Alexander Technique**

Yun-Chieh Chou

*Louisiana State University and Agricultural and Mechanical College*

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WHEN THE MOUSE MEETS THE ELEPHANT:  
A MANUAL FOR STRING BASS PLAYERS  
WITH APPLICATION OF  
THE PHILOSOPHY AND PRINCIPLES OF  
THE F. M. ALEXANDER TECHNIQUE

A Monograph

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Musical Arts

in

The School of Music

by  
Yun-Chieh Chou  
B.M., Tunghai University, Taiwan, 2001  
M.M., Louisiana State University, 2007  
August 2013

*This monograph is dedicated to my beloved mom*

*(Ms. Hui-Yu Chuang)*

*who provides love, endless support, and encouragement.*

## **ACKNOWLEDGMENTS**

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## **ABSTRACT**

This study was concerned with the use of the Alexander Technique principles in avoiding unwanted muscular tension and maintaining proper use of the body in double bass playing. Of particular importance was how the Alexander Technique could facilitate the fundamentals of double bass playing. The Alexander Technique is a hands-on method which aids the individual in achieving muscular coordination which is free and lively. Applying the principles of the Alexander Technique helps one achieve a harmonious psychophysical state, which results in greater ease, poise, and physical coordination in any activity, even the most demanding of virtuoso works for double bass.

As a petite female bass player, I had cultivated much improper habitual muscular tension since the very beginning of my bass study. I had a very wrong idea about the use of body strength in relation to playing my bass. I decided to use narrative inquiry (autoethnography) to study the influence of Alexander Technique lessons on the physiological and psychological aspect of my double bass playing. Over the course of one year, I took Alexander Technique lessons and kept a journal, took pictures, and video-taped my lessons in order to collect data on my progress. In addition, I completed interviews with my Alexander Technique teacher and my double bass teacher to get their perspectives on my performance.

I found that after three months my neck and shoulder strain has improved, after four months my upper back strain had improved, after six months the muscle tension in my right leg had

improved, after nine months the pain on the left side of my lower back had improved, after 11 months the pain on the left side of my lower back had disappeared, and at the end of 12 months, there was less muscular interference with my breathing, allowing me to breathe more freely while playing. Both my Alexander Technique teacher and my double bass teacher noticed great improvement in my performance.

This study demonstrates how the Alexander principles can help reduce physical limitations with or without the instrument, thus enabling the full emotional expression, freedom of movement, and relief from tensions while making music with more balanced coordination.

# CHAPTER 1

## INTRODUCTION

### Background of the Study

To the college string teacher, it is both startling and alarming how often the studies and professional development of aspiring young musicians are significantly slowed or even brought to a halt by ailments affecting their arms, shoulders and backs.<sup>1</sup>

Eric Rosenblith<sup>2</sup>

It is not uncommon for musicians to suffer from physical as well as mental stress while practicing and/or performing. These flare ups might be temporary, simply brief annoyances or chronic and debilitating. Physical pain, neck strain, shoulder pain, back pain, performance anxiety, and mental self-criticism have all prevented musicians from playing freely at their maximum potential.

“Overuse (injury) syndrome, common in musicians, is characterized by persisting pain and tenderness in the muscles and joint ligaments of the upper limb due to excessive use, and, in more advanced instances, by weakness and loss of response and control in affected muscle groups.”<sup>3</sup> This injury particularly happens in musicians when practicing time increases, in

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<sup>1</sup> Richard Norris, *The Musician's Survival Manual: A Guide to Preventing and Treating Injuries in Instrumentalists*, 5<sup>th</sup> ed. (MA: Richard Norris, 2011), 04. Kindle e-book.

<sup>2</sup> The chairman of the String Department of the New England Conservatory

<sup>3</sup> H. J. H. Fry, “Prevalence of Overuse (Injury) Syndrome in Australian Music Schools,” *Journal of Industrial Medicine* 44 (Jan.1987): 35.

addition to an often intensive rehearsal and performance schedule for symphony orchestras and chamber music. According to research studies, which were conducted individually by H. J. H. Fry in seven Australian music schools and professional symphony orchestras, the prevalence of overuse (injury) syndrome which occurred in music students and orchestral musicians were found to be particularly acute; especially for the orchestral players, with 50% of them suffering physical aches. Fry further pointed out that the cause of the overuse (injury) syndrome may be identified through physical vulnerability, inappropriate application of technique, and intensive practicing. Education about and use of rational practice habits is considered to be essential towards preventing musicians from becoming injured.<sup>4</sup>

The success of the Alexander Technique has extended its reputation internationally and its theory has been practiced and recognized in numerous disciplines, including the health field, performing arts, education, science, and sports. In the article *Evidence for the Effectiveness of Alexander Technique Lessons in Medical and Health-Related Conditions*, which was published in the *International Journal of Clinical Practice*, J. P. Woodman and N. R. Moore methodically accessed the currently valid studies and data relating to the effectiveness of the Alexander principles in chronic and intractable health-related problems. The following information is

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<sup>4</sup> H. J. H. Fry, "Prevalence of Overuse (Injury) Syndrome in Australian Music Schools," *Journal of Industrial Medicine* 44 (Jan.1987): 35-40.

from the research studies that the authors selected for reviewing. The result was presented afterwards.<sup>5</sup>

Of 271 publications identified, 18 were selected: three randomized, controlled trials (RCTs), two controlled non-randomized studies, eight non-controlled studies, for qualitative analyses and one health economic analysis. One well-designed, well-conducted RCT demonstrated that, compared with usual GP care, Alexander Technique lessons led to significant long-term reductions in back pain and incapacity caused by chronic back pain. The results were broadly supported by a smaller, earlier RCT in chronic back pain. The third RCT, a small, well-designed, well-conducted study in individuals with Parkinson's disease, showed a sustained increased ability to carry out everyday activities following Alexander lessons, compared with usual care. The 15 non-RCT studies are also reviewed.

Strong evidence exists for the effectiveness of Alexander Technique lessons for chronic back pain and moderate evidence in Parkinson's-associated disability. Preliminary evidence suggests that Alexander Technique lessons may lead to improvements in balance skills in the elderly, in general chronic pain, posture, respiratory function and stuttering, but there is insufficient evidence to support recommendations in these areas.<sup>6</sup>

As a petite female bass player, I have been confronted by the need to handle a very large instrument. From the beginning of my study, I had unconsciously developed many patterns of

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<sup>5</sup> J. P. Wood and N. R. Moore, "Evidence for the Effectiveness of Alexander Technique Lessons in Medical and Health-Related Conditions: a Systematic Review." *International Journal of Clinical Practice* 66, no. 1 (Jan. 2012): 98-99.

<sup>6</sup> Ibid., 98.



excessive muscular tension in order to compensate for my small size. For years I had struggled with this tension until I began to work with an Alexander Technique teacher.

Brahms' *Cello Sonata in e minor* and *The Butterfly Lovers* Violin Concerto, are both works transcribed for double bass by Yung-Chiao Wei, the double bass Professor at Louisiana State University. Because of the admiration I have for both pieces, as well as my hearty appreciation for the live performance of Prof. Wei, I was inspired to consider performing them as my new learning goal. To achieve this goal, it was necessary for me to be aware of the musical challenges of performing these pieces on bass, which requires tremendous technical ability, mental preparation, and physical strength in order to reach the performance level required for such a demanding repertoire.

As the result of my eagerness to prove myself worthy of playing these transcribed pieces on bass, I started an intense practice regimen for about a month. The result was severe muscular pain, particularly in the shoulder and back. I was advised by a physician to stop practicing the instrument until the symptoms lessened so as not to develop a chronic condition. In addition to resting from playing my instrument, I chose to begin weekly Alexander Technique lessons. The result was so dramatic that I chose to present this process in my monograph.

Not long after starting Alexander Technique lessons, I began to gain much more awareness about the way I was moving my body and how to let my body find a way of balancing itself without the mind dominating and controlling the body. I gradually changed the habits which

led to excess tension in my instrumental playing. I became more aware of the relationship between the head/neck/spine of the body in relation to my instrumental playing. My Alexander Technique study has been a process of psychophysical re-education where my mind and body, and all aspects of my being, have relearned how to work in harmony with each other. I learned that the relationship of the head to the neck in the atlanto/occipital joint and the relationship of that joint to the rest of spine is key in finding the delicate balance of muscular tension needed to play my bass with ease and comfort. I also discovered that my mental attitude contributed greatly to the degree of physical tension. The harder I was on myself, the more tension I perceived. Gradually, as I discovered and worked through my own personal patterns of thinking and using my body, the muscular tension I had been experiencing for years decreased. Now the Alexander Technique has become part of my daily life in all kinds of actions and thoughts as much as possible. Walking, jogging, sitting, standing, reading, breathing, and thinking, all of these natural everyday activities indirectly blend harmoniously and thoroughly into the motions of double bass performance. I came to understand that how I live, is how I play.

The purpose of this research paper is to examine how the Alexander Technique can be generally applied to the fundamentals of double bass playing and, more specifically, to the process of double bass practicing in the opening of *The Butterfly Lovers* Violin Concerto by Zhan-Hao Ho and Chen Kang and a few excerpts from Brahms' *Cello Sonata in e minor*. In

this study, I present my own experience with the Alexander Technique to demonstrate various points. The study demonstrates how the Alexander principles can help reduce physical limitations with or without the instrument, thus enabling the full emotional expression, freedom of movement, and relief from tensions while making music with more balanced coordination. This research hopefully would help bass players become more aware of the idea of *using*<sup>7</sup> the body in a natural manner in order to reduce unwanted physical tension, and mental stress, while improving coordination and flexibility of the body, the ultimate result being more efficient and refined double bass playing.

### **Organization of the Study**

The content of this research paper is divided into seven chapters. The introduction provides background information about the study. Chapter 2 commences with the scientific, medical, and personal anecdotal evidence from various fields about the benefits of the Technique, followed with the reviews of relevant literature about the application of Alexander Technique to string playing. Scientific research and studies of string pedagogy in relation to the Technique are included. Literature which was written by important Alexander Technique figures, such as F. M. Alexander, Walter Carrington, and Barbara Conable are offered.

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<sup>7</sup> The term *use*, as applied in the Alexander Technique, “it is not in that limited sense of the use of any specific part,...but in a much wider and more comprehensive sense applying to the working of the organism in general.” F. M. Alexander, *The Use of the Self: Its Conscious Direction in Relation to Diagnosis Functioning and the Control of Reaction; With an Introduction by Wilfred Barlow*. Reprint (London: An Hachette UK Company, 2001), 22.

Chapter 3 introduces the origin of the Alexander Technique and presents an overview of how Frederick Matthias Alexander discovered and developed the Alexander Technique, as well as an explanation of certain Alexander Technique principles, such as Primary Control, Inhibition, Direction, End-gaining, Means-whereby, Constructive Conscious Control, and Unified Field of Attention.

Chapter 4 is my research methodology. The context includes (1) how physical limitation has impacted my ability to perform; (2) why the narrative research design is the best way to present my problems and document effects of Alexander Technique study; (3) an explanation of why a trained Alexander Technique teacher's assistance is necessary while learning the Technique, following with an introduction of my Alexander teacher, Professor Patricia O'Neill; and (4) my time frame and documentation of data collection for this study.

Chapter 5 talks about the application of the principles of Alexander Technique to the fundamentals of double bass playing. Topics include Balanced Body Posture in Standing and Sitting, Breathing, Body Freedom, Focusing and Directing Energy, Hand and Arm Structure and Movement, Back Support, Achieving a Full Tone, and Vibrato. The final part of this chapter will present two Alexander Technique procedures, Constructive Rest and Position of Mechanical Advantage (Monkey), which are helpful exercises for reducing muscular tension.

In Chapter 6, I will explain how I overcame the mental, physical, and technical difficulties I had encountered in performing the opening of *The Butterfly Lovers* Violin Concerto and Brahms' *Cello Sonata in e minor*, with few examples from the relevant passages.

The final chapter (Chapter 7) presents a discussion about my personal improvement in muscle-related problems through the use of Alexander Technique principles, in conjunction with the evidence of the effectiveness of Alexander Technique lessons in medical and health-related areas. A summary of the benefits of integrating the Alexander Technique into double bass performance will conclude the study.

## **CHAPTER 2**

### **REVIEW OF RELATED LITERATURE**

This chapter will begin with what people have said about the Alexander Technique, following with synopsis of F. M. Alexander's four written works about the Technique. Some literature about the application of the Alexander Technique to string playing will be examined. Discussions of relevant string pedagogies, which have similar ideas as those of F. M. Alexander, will be made. Research subjects who credit the benefits of the Alexander Technique from various fields will also be investigated. Other works contributed by important Alexander Technique figures, such as Walter Carrington and Barbara Conable, will be provided.

#### **Credit for Alexander Technique from Various Fields**

The Alexander Technique is verified and supported by a large number of renowned scientists, philosophers, and doctors. Among those, significant proponents are: the winner of the Nobel Prize in Physiology or Medicine in 1973, Nikolaas Tinbergen; the American philosopher, educational reformer, and psychologist, John Dewey; the English writer, Aldous Huxley; an Irish playwright, George Bernard Shaw; an anatomist and anthropologist, Raymond Dart; anatomist George Ellett Coghill; and neurologist C.S. Sherrington.<sup>8</sup> In addition, in the field of performing arts (music, dance, and theater) renowned supporters include the Academy Award winning actors Kevin Kline and William Hurt, and the musicians Yehudi Menuhin

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<sup>8</sup> Phyllis Sanfilippo, *The Reader's Guide To The Alexander Technique: A Selected Annotated Bibliography* (California: Centerline Press, 1987), 7.

(violinist), James Galway (flutist), and Paul McCartney (the Beatles).<sup>9</sup> William Hurt said, “The Alexander Technique has helped me to undo knots, unblock energy, and deal with almost paralyzing stage fright.”<sup>10</sup>

Tinbergen, a Dutch ethologist and ornithologist, won the Nobel Prize in Physiology or Medicine in 1973 with Karl von Frisch and Konrad Lorenz. In his Nobel Prize acceptance speech *Ethology and Stress Diseases*, Tinbergen credited F. M. Alexander and the Alexander Technique for “the relief of human suffering” in psychosocial stress and psychosomatic diseases.<sup>11</sup>

...My second example of the usefulness of an ethological approach to Medicine has quite a different history. It concerns the work of a very remarkable man, the late F. M. Alexander. His research started some fifty years before the revival of Ethology for which we are now being honoured, yet his procedure was very similar to modern observational methods, and we believe that his achievements and those of his pupils deserve close attention...my wife, one of my daughters and I decided to undergo treatment ourselves, and also to use the opportunity for observing its effects as critically as we could...between the three of us, we already notice, with growing amazement, very striking improvements in such diverse things as high blood pressure, breathing, depth of sleep, overall cheerfulness and mental alertness, resilience against outside pressure, and also in such a

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<sup>9</sup> Phyllis Sanfilippo, *The Reader's Guide To The Alexander Technique: A Selected Annotated Bibliography*, 7.

<sup>10</sup> Jane Kosminsky and William Hurt, *First Lesson: An Introduction to the Alexander Technique*, VHS, (New York: Wellspring Media, 1999).

<sup>11</sup> Nikolaas Tinbergen, “Ethology and Stress Diseases.” (Noble Lecture, December 12, 1973).

refined skill as playing a stringed instrument...In this short sketch, I can do no more than characterize, and recommend, the Alexander treatment as an extremely sophisticated form of rehabilitation, or rather of re-deployment, of the entire muscular equipment, and through that of many organs.<sup>12</sup>

Kevin Kline is a well-known American actor, who wrote a forward to Judith Leibowitz's book, *The Alexander Technique: the world-famous method for enhancing posture, stamina, health and well-being, and for relieving pain and tension*. He states,

The Technique, which seemed at first inexhaustibly mysterious, turned out to be an accessible and most enjoyable discipline to learn and to practice. I have found in the ensuing years, great benefits in my day-to-day living. By balancing and neutralizing tensions, I've learned to relieve as well as avoid the aches and pains caused by the thousands of natural shocks that flesh is heir to.<sup>13</sup>

John Dewey was very impressed by the healing qualities of the Alexander Technique after taking lessons with F. M. Alexander, which remarkably improved his somatic illness. Dewey wrote introductory words to three of Alexander's four books: *Man's Supreme Inheritance* (1918), *Constructive Conscious Control of the Individual* (1923), and *The Use of the Self*

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<sup>12</sup> Nikolaas Tinbergen, "Ethology and Stress Diseases." (Noble Lecture, December 12, 1973).

<sup>13</sup> Kevin Kline, forward to *The Alexander Technique*, by Judith Leibowitz and Bill Connington (NY: Harper & Row Publisher, 1990), ix.



(1932).<sup>14</sup> The following excerpt is the beginning of the introduction by Dewey in *The Use of the Self*.

In writing some introductory words to Mr. Alexander's previous book, *Constructive Conscious Control of the Individual*, I stated that his procedure and conclusions meet all the requirements of the strictest scientific method, and that he has applied the method in a field in which it had never been used before- that of our judgments and beliefs concerning ourselves and our activities. In so doing, he has, I said in effect, rounded out the results of the sciences in the physical field, accomplishing this end in such a way that they become capable of use for human benefit.<sup>15</sup>

Frank Pierce Jones (1905-1975), the author of *Freedom to Change: the Development and Science of the Alexander Technique*, was one of the prominent pupils of F. M. Alexander. He was highly encouraged by John Dewey to devote himself to developing the scientific research and practical applications of the Alexander Technique. He strongly believed that the Alexander approach had a great potential and benefit for education. In his lecture: "The Alexander Technique for Musicians" in 1975, Jones stated that

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<sup>14</sup> John B. Harer and Sharon Munden, *The Alexander Technique Resource Book: A Reference Guide* (Maryland: The Scarecrow Press, Inc., 2009), 16.

<sup>15</sup> F. M. Alexander, *The Use of the Self: Its Conscious Direction in Relation to Diagnosis Functioning and the Control of Reaction; With an Introduction by Wilfred Barlow*, Reprint. (London: An Hachette UK Company, 2001), 7.

instead of telling your pupil what he is doing wrong or even showing him (by means of video or audio playback) what he is doing or exhorting him or admonishing him to change, you give him the experience of doing it a new way and letting him judge the difference for himself.<sup>16</sup>

During this lecture, he shared an Alexander experience of teaching a double bass player. The bassist was having trouble with playing smoothly from down bow to up bow in a specific section of an audition piece, which he was going to perform for Koussevitsky, the famous music director of the Boston Symphony Orchestra and a legendary double bass virtuoso in the 20<sup>th</sup> century. By attempting to solve the problem, the bass player made himself work too hard. Therefore, he developed an extremely high degree of muscular tension in his neck, shoulder, back, and legs. The physical tension was so extreme that his body could not bear it anymore. Jones observed that the bassist had the habit of pulling his head down instead of up, before he got ready to play that specific transition. This habitual action caused the bassist to play the instrument in poor physical coordination and posture. Jones adjusted the bassist's head-neck relationship with his trained hands. By applying the principle of *primary control*, the particular problematic place went smoothly.<sup>17</sup>

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<sup>16</sup> Frank Pierce Jones, "The Alexander Technique for Musicians" (lecture, Indiana University School of Music, Bloomington, IN, March 10, 1975).

<sup>17</sup> Ibid.

## The Written Works of F. M. Alexander

The ideas of Alexander's self-exploration and self-discovery were fully explored in his four major works. These works were written by F. M. Alexander between 1910 and 1941. These books provide an elaborate description of how Alexander put his discoveries into practice relying on his own sensory experience. Before his first publication, *Man's Supreme Inheritance*, Alexander issued a series of pamphlets to present his point of view about the evolution of his discovery.<sup>18</sup>

The writing style of Alexander in these books is often considered complicated and not easy to read. Since it is hard to convey the sensory experience by simple explanations, the structure of the text is made up of many long and complicated sentences.

Both *Man's Supreme Inheritance* (1910), and *Constructive Conscious Control of the Individual* (1923) describe the Technique through Alexander's evolving hypothesis derived from his personal practical experience over a period of years. The content includes the explanation of the Technique that Alexander believed could improve faulty sensory perception in human functioning through the concept of *means-whereby*.

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<sup>18</sup> Carol Porter McCulloch, "The Alexander Technique and the Pedagogy of Paul Rolland" (PhD diss., Arizona State University, 1996), 27.

In *Constructive Conscious Control of the Individual*, Alexander further expands the concept of sensory awareness and application of the Technique in lessons with his students, which he then outlines in case histories.

Upon the release of *The Use of the Self* (1932), “the *British Medical Journal* called it a classic - a classic of scientific observation.”<sup>19</sup> In this book, Alexander describes the process he underwent that ultimately resulted in the development of the Alexander Technique. He describes in detail how he learned to apply certain principles to resolve his vocal problem, through patient self-observation and experimentation. He emphasized the importance of the unity of mind and body in working toward a psychophysical whole, and regarded the concept of *primary control* as the utmost significant principle in processing any human activity.

Alexander’s fourth and last work, *The Universal Constant in Living* (1941), presented over 45 years of accounts of practical experience in Alexander’s teaching and his thoughts on the Technique and its implications for the consequences of how humans use themselves.

### **A Scientific Study about the Alexander Technique**

An important scientific study of kinesthetic awareness as it relates to the Alexander Technique is *The Lost Sixth Sense*, written by a physiologist, Dr. David Garlick. He applied the relevant scientific discoveries and experiments on the nature of physical muscular functions in

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<sup>19</sup> F. M. Alexander, *The Use of the Self: Its Conscious Direction in Relation to Diagnosis Functioning and the Control of Reaction; With an Introduction by Wilfred Barlow*. Reprint (London: An Hachette UK Company, 2001), 3.

the field of medical science to interpret the scientific meaning of the Alexander Technique concepts. Various hand-drawn illustrations are given to clarify complex physiological issues in regard to the principles of the Technique.

### **Literature about the Application of the Alexander Technique to String Playing**

*The Alexander Technique and the Pedagogy of Paul Rolland* (1996) is a research study by Carol Porter McCullough, a certified Alexander Technique teacher. This study fully explores how the Alexander Technique can be applied and brings far-reaching effect on the method of violin/viola teaching and playing from various points. McCullough applied Rolland's pedagogy and teaching philosophy as a tool to clarify the meaning of the Alexander principles in relation to the fundamentals and the physiological aspects of upper string playing. The discussions of the Alexander philosophy further demonstrate the effective use of Rolland's pedagogical ideas in string playing. The illustrations of violin/viola students of all ages, are used for exhibiting the wrong and right use of the head/neck/torso relationship relating to their instrumental playing.<sup>20</sup> This study is a valuable reference for string players who are interested in understanding the natural functions of human structure in relation to body movement for upper string players based on the Alexander Technique.

Vivien Mackie, a professional cellist, the author of '*Just Play Naturally*', had studied with

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<sup>20</sup> Carol Porter McCulloch, "The Alexander Technique and the Pedagogy of Paul Rolland" (PhD diss., Arizona State University, 1996).

Pablo Casals<sup>21</sup> intensively for three years in Prades, France during 1950s. In 1970, Mackie met Joe Armstrong in the Alexander teacher's training course which was given by Walter Carrington<sup>22</sup> in London. Armstrong, the flautist, admired Casals' philosophy in music teaching and his musicality very much, and regarded Casals as the most influential artists in 20th century. In '*Just Play Naturally*', Mackie shares what she had learned from Casals with Armstrong by giving him cello lessons. They collaborate together and "show how the elements of his (Casals) great legacy can be understood and passed on especially with the aid of the Alexander Technique, since the process of learning and teaching it involves so many of the same understandings applied to life in general that Casals brought to cello teaching and all his music making."<sup>23</sup> This book combines the quintessence of the philosophy of Casals in his cello teaching and the concepts of F. M. Alexander Technique, as well as provides a lot of valuable information especially for string players, to apply to their daily practicing and performing.

Pedro de Alcantara, the author of *Indirect Procedures: A Musician's Guide to the Alexander Technique*, is also a professional cellist and an experienced certified Alexander Technique teacher. The content of this book is divided into three sections, which covers the

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<sup>21</sup> Pablo Casals (1876-1973), was a pre-eminent Catalan cellist and conductor in the 20<sup>th</sup> century.

<sup>22</sup> See Chapter 2, the description about Walter Carrington in the section of Other Works by Important Alexander Technique Figures, p.20.

<sup>23</sup> Vivien Mackie, '*Just Play Naturally*': in conversation with Joe Armstrong; an Account of her Study with Pablo Casals in the 1950s and her Discovery of the Resonance between his Teaching and the Principles of the Alexander Technique (Duende ed. N.p: Xlibris Corporation, 2006), xvii.

fundamental principles of the Technique, the Alexander procedures, and the applications to daily practice and to musical performance. In this book, Alcantara applies a lot of his practical teaching experience and quotes numerous noted figures' philosophy from various fields, to echo and to demonstrate the various concepts of the Alexander Technique. Various illustrations are given to help readers gain comprehensive understanding of the points he addresses. This book is a very useful manual for musicians, which covers abundant valuable and practical advice to general musical activities.

### **Studies of String Pedagogy**

*Violin Pedagogy of Imre Waldbauer* is written by Julia Quick. In this study, Quick stresses Waldbauer's knowledge and understanding in the art of violin playing. Mr. Waldbauer, a distinguished Hungarian violinist, was one of the most important teachers of Paul Rolland. Waldbauer was primarily interested in the study of anatomy and was known for applying relevant anatomically-oriented approach to help his students improve their technical problems of violin playing. His philosophy of violin teaching was to free one's body movements from excess physical tension. "Waldbauer demonstrated the use of the large muscles in their relationship to the small ones, and he emphasized the necessity of using these large and small muscles in harmony in order to produce a good sound." Further discussions of Waldbauer's points of view in his pedagogical innovation will be applied throughout Chapter 5 of this study.

*The Teaching of Action in String Playing* (1974) by Paul Rolland and Marla Mutschler, is a violin/viola pedagogy book mainly for string teachers, aiming to teach and establish correct motion patterns free from excessive tension, required for beginners in a classroom setting. This book incorporates the pedagogical approach of Rolland with the neuroscientific support based on the theory of control and regulation of voluntary movement by F. A. Hellebrandt, a biological scientist and a string player herself. The content of this book was derived from the result of The Illinois String Research Project conducted by Rolland and his research associates.<sup>24</sup> Hellebrandt had contributed a chapter about “control and regulation of voluntary movement” in this book. She stated that “the correct use of inborn bodily mechanisms” is the essential key to achieve the level of virtuoso in musical performance.<sup>25</sup> This idea has much in common with the approach of F. M. Alexander, as well as Rolland’s pedagogical ideas in string teaching. In 1977, Rolland became one of the active advocates of Alexander Technique.<sup>26</sup>

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<sup>24</sup> Paul Rolland and Marla Mutschler, “The Teaching of Action in String Playing: Developmental and Remedial Techniques; Violin and Viola.” *Control and Regulation of Voluntary Movement: Application of Newer Knowledge to Violin Pedagogy* by F.A. Hellebrandt, M.D., 10-29 (Urbana, Illinois: Illinois String Research Associates, 1974), 1-5.

<sup>25</sup> Ibid., 10.

<sup>26</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland” (PhD diss., Arizona State University, 1996), 2-3.



### **Other Works by Important Alexander Technique Figures**

Walter Carrington, the author of *Thinking Aloud*, who was taught by F. M. Alexander, was one of the renowned figures in the Alexander world. *Thinking Aloud* presents the quintessence of Carrington's Alexander teaching experience over sixty years. He elegantly reveals how our inner state influences the quality of using our body moment by moment, thus enables us to understand how the philosophy and the practice of Alexander Technique are related to the general act of human living. His writing in *Thinking Aloud* is simultaneously educational and interesting.

Barbara Conable, is the author of *What Every Musician Needs to Know about the Body* and *How to Learn the Alexander Technique*. Both books are the very useful manuals especially for musicians in learning the concept of the Technique, at the same time understanding the structure of the whole body. In these two books, Conable presents the basic idea of body mapping in a simple and comprehensive way, and elaborates it according to the needs of musicians. Various pictures are given to help readers obtain the detailed and accurate information about how human body is structured.

### **Need for the Study**

Many music students may become perplexed while practicing extremely difficult passages in their repertoire: the harder they practice, the more problems they create. In addition, both

psychological and physiological *misuse*<sup>27</sup> may occur in the process of double bass playing. Both will inevitably manifest physically into harmful circumstances that prevent a player from fulfilling his/her goals in performance. The ingrained, undesirable patterns, which interfere with players' ability in mind/body coordination, are most often the result of psychological barriers.

There are small numbers of scientific research studies focus on the Alexander Technique. Those that do exist seem promising. There is a body of literature that anecdotally supports the use of the Alexander Technique to alleviate stress in the body and mind that inhibit musicians. Most of these books and articles are from the perspective of the Alexander Technique teachers. Modern investigations for the application of the Alexander Technique in string playing have gradually increased, especially for violin, viola, and cello performance. However, formal research studies for incorporating the Alexander Technique into double bass performance are relatively scarce.

A number of standard double bass method books and opinions of pedagogues from past to contemporary primarily concentrate on the technical expertise of double bass playing. Few address the importance of physical freedom in relation to double bass playing. In addition, a remedy for physiological and psychological misuse as indicated above is lacking in standard

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<sup>27</sup> "The term *misuse*, as applied in the Alexander Technique, is a person's inappropriate use of their body, involving poor muscle tone and co-ordination, which disturbs the body's intrinsic balance and the way in which it functions." King, Hilary, "Alexander Technique Glossary of Terms," Alexander Technique Teacher in North London, <http://www.hilaryking.net/glossary> (accessed December 22, 2012).

double bass teaching literature. This study introduces to the bass playing community, from the perspective of the student, valuable understanding of physiology and psychology of human movement developed by F. M. Alexander. It offers detailed explanations for bassists on how to liberate themselves from ingrained habitual use of the body and mind by reviving their self-awareness through an Alexander Technique teacher's conscious guidance.

As a result of the general absence of related research and considering my personal struggle and physical difficulty in freely performing on the instrument, it is clear that there is an urgent need for research in the use of the Alexander Technique in bass playing.

### **Research Questions**

Specific research questions pertaining to this study are:

- (1) How do the principles of the Alexander Technique apply to the physiological and psychological aspect of double bass playing?
- (2) How effective is the use of Alexander Technique in helping me maintain the proper thinking and use of my body in the process of double bass playing?

### **CHAPTER 3**

#### **F. M. ALEXANDER AND THE ALEXANDER TECHNIQUE**

This story of perceptiveness, of intelligence, and persistence, shown by a man without medical training, is one of the true epics of medical research and practice.<sup>28</sup>

Nikolaas Tinbergen<sup>29</sup>

F. M. Alexander (1869-1955), the founder of the Alexander Technique, an Australian professional reciter and actor who gained his reputation by orating Shakespearean plays in his early twenties, established an accessible discipline based on the appreciation of the true nature of human function and behavior. The Alexander Technique centers on his discovery of “a dynamic balance by which the weight of the head is balanced under the changing conditions of the body in activity.”<sup>30</sup> This improves the quality of the head/neck/torso relationship in overall muscular functioning by conscious control. This chapter will introduce the origin of the Alexander Technique, following with paragraphs which mainly address Alexander’s early life. Although there is much literature concerned with the life of Frederick Matthias Alexander, of particular relevant importance to this paper are the circumstances that brought him to develop the

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<sup>28</sup> Nikolaas Tinbergen, “Ethology and Stress Diseases.” (Noble Lecture, December 12, 1973).

<sup>29</sup> See Chapter 2, the description about Nikolaas Tinbergen, p.10.

<sup>30</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland” (PhD diss., Arizona State University, 1996), 38.

Technique and how these circumstances influenced the ways in which he applied it. The principles of the Alexander Technique will be presented thereafter.

### **The Origin of the Alexander Technique**

The Alexander Technique is a method that focuses on mind/body reeducation. It aids each individual to become aware of and ultimately refrain from improper habitual muscular responses, which, in turn, allows a return to more natural bodily coordination and ease of movement. This concept originates from the personal practical experience that F. M. Alexander gained while attempting to solve the difficulty he was experiencing in the art of recitation. His process of learning how to deal with these difficulties established the basis of the concept of psychophysical unity, which Alexander espoused.<sup>31</sup>

In his late teens, Alexander suffered a serious voice loss while reciting on stage. As his hoarseness intensified, it became clear to him that his career was in jeopardy.<sup>32</sup> The primary remedial prescription by doctors of rest between performances made his hoarseness less severe, but that only worked as long as he rested his voice. Upon returning to reciting, the hoarseness returned repeatedly and interfered with his reciting. Therefore, Alexander began to investigate

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<sup>31</sup> Jr. Theodore Dimon, *The Undivided Self: Alexander Technique and the Control of Stress* (Berkeley, California: North Atlantic Books, 1999), ix.

<sup>32</sup> F. M. Alexander, *Articles and Lectures: Articles, Published Letters and Lectures on the F.M. Alexander Technique*, Edited by Jean M. O. Fischer, 2<sup>nd</sup> ed. (London: Mouritz, 2011), 220.

his condition himself, trying to discover what caused his vocal fatigue.<sup>33</sup> He realized that his own habitual response patterns were the cause of his voice loss. These patterns of excessive muscular tensing were caused by the misapplication of natural physiological functions. Thus, he commenced in his quest to prevent himself from having these chronic reactions by executing a series of experiments intended to discover ways to solve his problems.<sup>34</sup> Gradually, by applying the results of his personal discovery, now known as the Alexander Technique, Alexander fully recovered from his voice loss and the respiratory trouble which he had been suffering from since birth.<sup>35</sup> He resumed his profession as an orator performing on the stage and constantly researched and developed the Alexander Technique through his teaching. Later, the Alexander Technique gained world-wide recognition.<sup>36</sup>

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<sup>33</sup> F. M. Alexander, *The Use of the Self: Its Conscious Direction in Relation to Diagnosis Functioning and the Control of Reaction; With an Introduction by Wilfred Barlow*, Reprint. (London: An Hachette UK Company, 2001), 24-26.

<sup>34</sup> Ibid., 26-47.

<sup>35</sup> Ibid., 47-48.

<sup>36</sup> John B. Harer and Sharon Munden, *The Alexander Technique Resource Book: A Reference Guide* (Maryland: The Scarecrow Press, Inc., 2009), xii-xiv.

## **F. M. Alexander**

F. M. Alexander (1869-1955) was born on a farm, in poverty, in Wynyard on the north-west coast of Tasmania in 1869 and suffered from poor health and respiratory system problems since he was a child. Because of his illness, he was educated at a private school for his early education.<sup>37</sup> Growing up at his grandfather's country farm, he acquired knowledge relating to agriculture and animal management, which explains his passion for horses and outdoor activities. In his early youth, he developed a deep appreciation for arts, particularly theatre, and an obsession with classical drama.<sup>38</sup>

His family encountered great financial difficulties which prevented Alexander from continuing regular schooling and forced him to move to Mount Bischoff for an official job with a mining company when he was seventeen. At that time, he worked many jobs to earn money for his living expenses. He also learned music by himself and actively participated in dramatic performances with local amateurs. During this period he developed a passion for reciting poetry, in particular Shakespeare. After working at the Mount Bischoff Tin Mining Company for three years, Alexander decided to move to Melbourne in search of more opportunities involving theatrical activities and to live with his uncle.<sup>39</sup>

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<sup>37</sup> John B. Harer and Sharon Munden, *The Alexander Technique Resource Book*, xii.

<sup>38</sup> F. M. Alexander, *Articles and Lectures*, 2<sup>nd</sup> ed., 212.

<sup>39</sup> *Ibid.*, 212-214.

During the first few months in Melbourne, F. M. Alexander attended concerts and art exhibitions and watched theatrical shows which were well-known in contemporary culture. Strongly aspiring to perform on the stage, Alexander considered very seriously educating himself as a professional orator. He began taking violin lessons with a renowned teacher, trained himself in acting almost every evening, and created plays for a local amateur dramatic club while taking up business jobs as well. After gaining various work experience in business which was not the goal he intended to fulfill, Alexander decided to give himself opportunities to test himself and discover whether he qualified to become a professional Shakespearean elocutionist. He returned to his hometown, Wynyard, and began giving recitals, touring around Tasmania and Australia; very soon he successfully established a reputation. However, a severe hoarseness often troubled Alexander while reciting on stage.<sup>40</sup>

He observed his physical actions by means of a number of mirrors while reciting. He noticed that three distinct customary responses happened when he began to orate: he dropped his head backwards, depressed his larynx, and sucked in his breath; these habitual reactions were present in his normal speaking as well, although they affected him to a lesser degree, they did not cause the vocal fatigue he was experiencing while reciting in public.<sup>41</sup> Alexander noted in his autobiographical sketch in 1950: “I considered that I had by my study and observation found that

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<sup>40</sup> F. M. Alexander, *Articles and Lectures*, 2<sup>nd</sup> ed., 214-221.

<sup>41</sup> F. M. Alexander, *The Use of the Self*, 26.



the source of my troubles lay in what I was doing myself in activity, particular in the use of my vocal organs and associated mechanism when reciting.”<sup>42</sup> In addition, he noticed that his habitually wrong use of the body was reflected in his daily activities as well, but the habitual patterns returned to be more and more exaggerated when both the intensity of mental stress and physical excitement were raised. This is very similar to the physical and mental stress encountered when presenting a lecture or performance in front of people on a stage or sight-reading a score during a first orchestral or chamber music rehearsal.<sup>43</sup>

After a series of experiments, Alexander realized that there was an urgent need for developing a method that would improve the quality of coordinating muscular functioning in overall physical motions, in order to have fully persistent control of his voice.

### **The Alexander Technique**

Alexander commenced developing the Technique in the early 1890s and devoted his lifetime to teaching others what he had learned through the Technique. The concepts of the Technique were established and refined through his discoveries, practice, and decades of teaching experience. Some important aspects of the Technique are as follows:

1. Use of the Self, one’s manner of doing and being, which is based on the indivisible unity of the body and mind in a psychophysical whole;

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<sup>42</sup> F. M. Alexander, *Articles and Lectures*, 2<sup>nd</sup> ed., 220.

<sup>43</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland” (PhD diss., Arizona State University, 1996), 9.

2. Primary Control, achieving harmony in the relationship among head, neck, and torso as it contributes to the harmony of overall human body coordination;
3. Faulty Sensory Perception, the distortion of the sense of body position and movement, which is associated with the habitual wrong use of the body;
4. Inhibition, preventing ourselves from repeating the improper habits in general activities;
5. Direction, rehearsing a set of statements in one's mind to train oneself to allow the body to lengthen and widen, instead of contract;
6. End-gaining, paying full attention to achieving a goal without appreciating the proper process of *doing*, which may put one at risk of experiencing improper contractions of muscles;
7. Means-whereby, the opposite of *end-gaining*, is the complexity of the psychophysical whole where one acknowledges the importance of the moment in the process of achieving the goal of that psychophysical whole;<sup>44</sup>
8. Constructive Conscious Control, "Constructive conscious control exploits the brain's vast potential for consciousness of self and choice."<sup>45</sup>

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<sup>44</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, December 11, 2012.

<sup>45</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique: A Manual for Students*, 3<sup>rd</sup> ed. (Chicago: GIA Publications, Inc., 1995), 119.

9. Unified Field of Attention, is a state of being present, which empowers a psychological whole, which includes all aspects of the self and their relationship with the environment while engaging all activities.

### **Use of the Self**

In the initial investigation Alexander was like the majority of people, viewing body and mind as working separately, and not in a psychophysical whole. However, his self-discovery experience gradually convinced him that the body and mind work together in all circumstances of human action. He noted in *The Use of the Self*,

I, in common with most people, conceived of ‘body’ and ‘mind’ as separate parts of the same organism, and consequently believed that human ills, difficulties and shortcomings could be classified as either ‘mental’ or ‘physical’ and dealt with on specifically ‘mental’ or specifically ‘physical’ lines. My practical experiences, however, led me to abandon this point of view and readers of my books will be aware that the technique described in them is based on the opposite conception, namely, that it is impossible to separate ‘mental’ and ‘physical’ processes in any form of human activity.<sup>46</sup>

In the case of a string player, the way he/she thinks will determine the choices he/she makes in the interpretation of a phrase, such as deciding the specific bowings to shape the phrase, playing specific notes with or without vibrato to express a specific timbre, or whether to use full hair of the bow for a rich sonority or a partial hair for a more focused tone. Thus, it is hard to

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<sup>46</sup> F. M. Alexander, *The Use of the Self*, 21.

say that one's interpretation of a phrase is purely "mental" or purely "physical."

### **Primary Control**

How can you tell which is the front end of a worm, anyway? Ever since creatures extended roundness into longness, heads have been leading bodies.<sup>47</sup>

Bill Conable

Through experimentation Alexander discovered that when he was able to prevent the wrong habit of dropping his head backwards, the depression of the larynx and sucking in of breath decreased; thus somewhat relieving his hoarseness. This important recognition coupled with Alexander's realization that the relationship of head to neck and then the head/neck to the torso influences the functioning of the human body. This led him to the important discovery of the use of *primary control*.<sup>48</sup> Walter Carrington, a member of F. M. Alexander's first teacher training class and prominent proponent for the Alexander Technique who is considered a giant in the Alexander world, described *primary control* as follows:

The primary control is the brain mechanism (with an important input from neck muscles) which allows the trunk of the person to lengthen (extend) and widen, with the neck muscles releasing or relaxing and the head going in a forward and up direction so that the breathing is functioning efficiently.<sup>49</sup>

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<sup>47</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique*, 14.

<sup>48</sup> F. M. Alexander, *The Use of the Self*, 27-28.

<sup>49</sup> Walter Carrington, *Personally Speaking: Walter Carrington on the F. M. Alexander Technique, in discussion with Sean Carey* (London: Sheildrake Press, 1986).

Frequently, people wonder why their head/neck muscles are still stiff, when they have attempted to follow the Alexander principle of “the head leading the body.” My Alexander teacher explained, some of people think head movement must be initiated from the top of the head instead of from the head/neck joint. By organizing well the dynamic relationship of the head with the neck in the atlanto/occipital joint (head-neck joint, Figure 1 and 2), and then the head and neck with the torso, one can improve the quality of overall bodily coordination. Elisabeth Walker<sup>50</sup> explains in her book, *Forward and Away*,

F. M. Alexander defines ‘primary control’ as the presence of ‘a master reflex...coordinating the whole psychophysical organism’. This subtle control is only possible when we do not interfere by tightening our neck muscles, but allow the head to balance freely on the atlanto-occipital joint at the top of the spine.<sup>51</sup>

When a string player contracts the neck muscles or collapses the back (distorting the use of *primary control*) in the process of his/her playing, his/her overall bodily function will be affected

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<sup>50</sup> Elisabeth Walker (1914- ), was trained by F. M. Alexander, last living first –generation Alexander Technique teachers.

<sup>51</sup> Elisabeth Walker, *Forward and Away: Memoirs* (UK: Gavin R Walker, 2008)

negatively, in terms of breathing, vibrato, and sound production.<sup>52</sup> Further discussion about the use of Primary Control in relation to double bass playing will be presented in Chapter 5, the fundamentals of double bass playing.



Figure 1 Atlanto/occipital joint (back)



Figure 2 Atlanto/occipital joint (side)

### **Faulty Sensory Perception**

During his experiments, Alexander found that when he tried to lengthen the torso in order

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<sup>52</sup> Pedro de Alcantara, *Indirect procedures: a musician's guide to the Alexander Technique* (New York: Clarendon Press, 1997), 26.

to prevent his old habitual pattern of pulling the head back while reciting, his body responded differently than he thought it would. Through further observation using mirrors, Alexander came to understand that when he intended to lengthen the body while reciting, there were other muscles involved in the way he stood, walked, and used his limbs for gestures. He realized these motions were related to other groups of muscles (which include hands, arms, legs, feet, and toes). When used in an unbalanced way, these muscles indirectly interfered with the function of the head/neck/back and caused excess muscular tension that stiffened his body. The combined wrong habitual patterns came to disturb Alexander's intention of lengthening the body, and obviously made him unable to reach a full physical coordination. Alexander explained further in *The Use of the Self*,

The influence of this wrong use was bound to be strong because of its being habitual,...this stimulus to general wrong use was far stronger than the stimulus of my desire to employ the new use of my head and neck, and I now saw that it was this influence which led me, as soon as I stood up to recite, to put my head in the opposite direction to that which I desired.<sup>53</sup>

This means whenever Alexander *felt* 'right' about having lengthened the torso; he actually did it in the original habitual (wrong) way. Alexander discovered that when he tried to send to his brain the new direction to free the neck, the wrong habitual patterns (of stiff neck and torso)

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<sup>53</sup> F. M. Alexander, *The Use of the Self*, 34.

naturally dominated the body into the same old wrong use of muscles, instead of the new, more naturally coordinated way. This is because the old habitual pattern had been rooted deeply in his sensory experiences. This ingrained sensory experience made the action feel right and familiar physically, as a response to the stimulus to recite. Contrarily, applying the new process of *primary control*, would result in the activation of natural muscular patterns that brought about a more effortless lengthening the spine. This experiment brought the *faulty sensory perception* principle into the teaching of the Alexander Technique.

Before going any further to discuss Alexander's discovery of *inhibition* and *direction*, it is necessary to explain the terms, *kinesthesia* and *proprioception*.

### **Kinesthesia and Proprioception**

Human beings recognize that they have five senses: sight, hearing, smell, taste, and touch. These senses fulfill the needs of humans by providing them with an awareness of themselves and their environment. However, there is an unrecognized sensory mechanism related to “the sense of limb and body position and movement,”<sup>54</sup> which usually operates unconsciously and automatically. This sense with dual components was termed as “*kinesthesia* (a sense of movement with inputs from receptors in joints and muscles) and *proprioception* (a sense of position with input from the organs of balance in the ear as well as joint and muscle

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<sup>54</sup> David Garlick, *The Lost Sixth Sense: a Medical Scientist Looks at the Alexander Technique* (Australia, Kensington: Centatime NSW Pty Ltd, 1990), 9.



receptors).”<sup>55</sup> It was described as a “Sixth Sense” by Charles Bell (1774-1842), who was one of the prominent Scottish anatomists of 19th century.<sup>56</sup>

From a musician’s point of view, *kinesthesia* is related more to one’s increase in neuromuscular activity (which occurs subconsciously). This is what musicians often call muscle memory, obtained from constant practicing, such as being able to play a piece on the instrument or singing a song. It also has to do with the body’s awareness of and relationship with the environment.<sup>57</sup> For instance, by involving one’s kinesthetic sense while walking, one can be simultaneously aware of the physical action of walking, and the environment which surrounds him. *Proprioception* is more about one’s physical awareness of positions within space.<sup>58</sup> For example, one can tell the exact position of the limbs without looking at them while gesturing.

When discussing faulty sensory perception, we know that one’s general utilization of physiological processes in the world is usually based on one’s instinctive feeling and habit which is often unreliable. In general, there are many people who ignore their sense of how

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<sup>55</sup> David Garlick, *The Lost Sixth Sense*, 9.

<sup>56</sup> Ibid.

<sup>57</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, August 21, 2012.

<sup>58</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, August 21, 2012.

consciously to use their body as a whole for coordinating the healthiest movements in muscles. “In our present state of civilization which calls for continuous and rapid adaptation to a quickly changing environment,”<sup>59</sup> “our minds become occupied with so many inputs and outputs to do with the outside world that signals from the body are suppressed or ‘gated out’ before reaching consciousness..., for instance, strong emotion can suppress pain. Strong contracted muscles can make a person less aware of what their [sic] muscles and limbs are doing.”<sup>60</sup>

There is much information that the brain needs to deal with in one’s daily activities. When one needs to use learned postures and movements, the sub-cortical part of the brain becomes active. That is where the learned postures and movements are deeply rooted, as they are processed into the subconscious level. For those motions which are familiar and learned, our body simply responds automatically. There is no need for the brain to process the redundant information repeatedly. This way, the brain can be fully prepared for learning new things.<sup>61</sup> For example, for trained string players, the sub-cortical part of the brain becomes active during the sight-reading of a score. They can easily play a melody immediately without searching for the position of each note on the fingerboard; their fingers automatically move to the exact position of each note without having to search for it. Again, this means “one does not require sensory feedback in familiar situations and can get by without the sixth sense of muscle

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<sup>59</sup> F. M. Alexander, *The Use of the Self*, 34.

<sup>60</sup> David Garlick, *The Lost Sixth Sense*, 9-11.

<sup>61</sup> David Garlick, *The Lost Sixth Sense*, 11.

and limb position.”<sup>62</sup> However, some advanced players are usually not aware that they may be applying excessive finger pressure while playing, which can cause unnecessary associated muscle tension. Ridding oneself of this excess muscular tension requires reviving the sixth sense.

In the study of the Alexander Technique, awakening the kinesthetic sense is key to helping the student become aware of his habitual misuse of muscular function. Only by becoming fully conscious of how the student is misusing himself, can he/she begin the process of changing these learned habits.

## **Inhibition**

While grappling with his dilemma of finding a way to change his habitual, overly tense way of reciting, Alexander realized that he would have to slow down in order to understand fully what he was doing. Thus, he made a decision to pause when he experienced a stimulus to recite, to avoid an immediate habitual response. This step in the Alexander Technique process, Alexander eventually called *inhibition*. Following Alexander’s example, Alexander Technique students are taught to refrain from an immediate response and pause a second while repeating a set of *direction* (discussed in the following section) in their minds, giving time for their bodies to

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<sup>62</sup> Ibid.

become fully coordinated in preparation for a new act. By so doing, they prevent themselves from contracting the muscles of their necks.

Confirming Alexander's discovery, Garlick explained further how the brain functions from the point of view of physiology:

Our consciousness, in the cortex of the brain, is where our will to do something arises. After this the pathways go to centers deep in the brain which form the subconscious or unconscious. If nothing is done to stop existing programs being activated resulting in inappropriate muscle contractions, then a person's characteristic way of sitting, standing and doing things will occur.<sup>63</sup>

Alexander found the key for stopping these unconscious processes from taking their pre-set paths. Once the impulse had formed in one's consciousness then one stops, or inhibits, the next step in activating the unconscious programs. One starts a new program which is laid down by using one's consciousness to give a set of "directions" to trunk and neck muscles with its emphasis on lengthening.<sup>64</sup>

When practicing *inhibition*, one must also learn to modify one's intentions. For instance, a bass player tries to play a fast passage with clear articulation; however, in some cases, the harder she tries, the tighter her neck becomes, muting the sound. She has achieved the opposite of what she intended by trying too hard. Pedro de Alcantara<sup>65</sup> observed, "notice that the idea is

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<sup>63</sup> David Garlick, *The Lost Sixth Sense*, 17.

<sup>64</sup> David Garlick, *The Lost Sixth Sense*, 17.

<sup>65</sup> See Chapter 2, the description about Pedro de Alcantara, p.18.

not to inhibit misuse directly, but to aim to inhibit the motivation to act that causes the misuse.”<sup>66</sup>

Becoming aware of and inhibiting habitual patterns of thinking is vital to changing the use of oneself as a whole. It is important that one realizes that the self functions as a whole.

From an Alexander point of view, it is impossible to separate the body and the mind. Use of the body will be affected by use of the mind and vice versa. The bass player’s desire to achieve a clear tone became her driving force. She would do whatever it takes to achieve it, to the point of misusing herself. In this case, every time she tries to play fast, her neck and ultimately her body, automatically becomes stiff, and, because she is so intent on achieving a clear tone, she articulates those notes with excess tension which immobilizes her left hand.

## **Direction**

Alexander stressed the concept that the body and mind can’t work independently throughout his study, *The Use of the Self*. He asserted that everything we do with our body is connected to the way we think. In Alexander Technique, *direction* refers to a mentally rehearsed series of specific statements, intended to prevent one from exerting unwanted muscular tension and enhancing appropriate use of body muscles. However, “to learn to direct is not ‘to

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<sup>66</sup> Pedro de Alcantara, *Indirect procedures: a musician's guide to the Alexander Technique* (New York: Clarendon Press, 1997), 5.

train the mind', or 'to train the body'. It is rather to establish, cultivate, and refine the connections between what one thinks and what one does."<sup>67</sup>

Some of the important directions of the Alexander Technique are (1) my neck to be free, (2) my head to move forward and up, and (3) my back to lengthen and widen. But the quality with which one offers these directions is a direction in itself.<sup>68</sup> Master Alexander teacher, Elizabeth Walker<sup>69</sup> calls *direction* a "fairy wish."<sup>70</sup> A direction offered must not contain any striving to achieve the goal, but must instead, have the qualities of a "fairy wish," which are a clear idea of what the fairy wants and a trust that the wish will be easily fulfilled. My teacher, Patricia O'Neill calls *direction*, "a quiet knowing."<sup>71</sup> Repeating these directions mentally, but without any mental effort leaves space for the neck to be free, the head to move forward and up freely and helps the back muscles to extend, each in their own coordinated way, which results in the lengthening and widening the torso.

## **End-Gaining**

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<sup>67</sup> Pedro de Alcantara, *Indirect procedures*, 56.

<sup>68</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, April 17, 2013.

<sup>69</sup> See Chapter 3, the description about Elizabeth Walker, the footnote 50, p.32.

<sup>70</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, January 8, 2013.

<sup>71</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, January 8, 2013.

“This refers to that part in us which fixes its sight on a goal and strives towards it no matter what the cost might be.”<sup>72</sup> Patricia O’Neill defines *end-gaining* as “misusing oneself to achieve a goal.” Alex Maunder clarified Alexander’s point of view about *end-gaining*, “most of the mental and muscular holding that was occurring was due to the habit of being so intent on reaching some particular goal in the future that the present could not be adequately enjoyed at all.”<sup>73</sup> Striving to achieve a goal usually results in an increase of unconscious muscular tension and eventually leads to physical pain. Typically, one who end-gains, does not understand why she eventually experiences pain.

As a music student with a jam packed schedule, I have often found myself with little time to warm up before a lesson with my major professor. Because these lessons happen only once a week, they are precious to me, so I want to be fully prepared. Yet because circumstances have left me little time to warm up, I am plagued great anxiety. So I quickly run into a practice room and play through a piece mindlessly. Needless to say, my anxious state of mind, prevents me from playing my best. As musicians, we practice extremely hard to refine our instrumental execution; however, we may miss the joyful journey in the process of practicing if we are eager to get to the end without taking time to enjoy the process of getting there.

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<sup>72</sup> Alex Maunder, *Let Your Life Flow: The Physical, Psychological and Spiritual Benefits of the Alexander Technique* (Essex, UK: The C. W. Daniel Company, 2002), 98.

<sup>73</sup> Alex Maunder, *Let Your Life Flow*, 98.

*End-gaining*, this common human habit of focusing on the goal rather than physical process in daily activities, is difficult to modify since habits are developed over a period of time. However, inappropriate habits can be conquered if one precisely executes the procedures included in the *means-whereby*, which is a method to help one feel in tune both mentally and physically with the processes of reaching the end goal.

### **Means-Whereby**

Alexander called the *means-whereby* “the reasoned means to the gaining of an end.”<sup>74</sup> It is a process which includes the principles of the Alexander Technique discussed above: *awareness, inhibition, and direction*. The application of *means-whereby* combines the concept of *inhibition*, abandoning the wrong habitual use of the self, as well as employing a sequence of new direction to operate different physical functions in a balanced, physiological advantageous way, to fulfill the use of the self.<sup>75</sup> The idea of the *means-whereby* emphasizes the importance of experiencing each moment of the process rather than only concentrating on one's goal.<sup>76</sup>

### **Constructive Conscious Control**

The title of F. M. Alexander's second book is *Constructive Conscious Control of the Individual*. *Constructive conscious control* was a term he used often to describe the process he

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<sup>74</sup> F. M. Alexander, *The Use of the Self*, 41.

<sup>75</sup> F. M. Alexander, *The Use of the Self*, 66-67.

<sup>76</sup> *Ibid.*, 41.



originated. It is the template which includes all of the principles of the Alexander Technique listed above and the employment of them all together results in the freedom and ease of movement that is the hallmark of the Technique. As Barbara Conable states,

Alexander's Technique uses the brain consciously for self-observation of habitual use of the organism, for conscious inhibition of habitual use, for conscious observation of an emerging more integrated use, for conscious cooperation with the more integrated use, and even for conscious observation of the more integrated use, all this depending surely on the conscious linking of conceptual and motor functions in the brain, by choice. Rather than creating a split, as some might expect, all this consciousness instead a profoundly integrating effect, healing the split many people experience between thinking and being, or mind and body, or consciousness of functioning. It is this integration which is the great good the Technique offers, with freedom and ease as by-products,...<sup>77</sup>

### **Unified Field of Attention**

Frank Pierce Jones, a prominent teacher of the Alexander Technique coined this phrase to describe a state of mind and being in which one is fully aware and present not only to the activity one is doing, but also to one's environment and circumstances.<sup>78</sup> Musicians tend to narrow their focus believing that they will have better concentration. Usually what happens is that the musician who believes he/she is concentrating is usually also narrowing his/her body as well,

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<sup>77</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique*, 120.

<sup>78</sup> Alex Nicolson, "EcoSomatics: the Alexander Technique & Somatic Education Center," <http://www.zulenet.com/ecosomatics/Glossary.html> (accessed March 1, 2013).

thereby compromising ease and freedom of movement.<sup>79</sup> In his book, *Freedom to Change*, he says,

The organism has at various times been divided and subdivided into a great many parts and categories- the mind and the body, the five senses, the vascular system and the like. Through for purposes of study these categories are convenient and perhaps necessary, there is always a danger of thinking that the divisions are real, and it is customary nowadays to start any treatise on human behavior by affirming the unity of the organism. There is on division, however, that is seldom questioned- the division between the self and the environment...<sup>80</sup>

He further explained human body functions as a unified whole, which integrating the self and the environment at the same time to reach the state of *unified field of attention*.

...Information about the state of the body and the state of the environment is being recorded in the brain at one and the same time. Attention is ordinarily directed either one way or the other but there is no reason why this need always be the case, since the organism is capable of selecting the stimuli to which it will respond.

...It is perfectly possible...to integrate the two fields, inward and outward, into one, by selecting elements from both for simultaneous attention. When the two fields are integrated in this way, the stimulus pattern and the

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<sup>79</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, March 27, 2013.

<sup>80</sup> Frank Pierce Jones, *Freedom to Change: the Development and Science of The Alexander Technique*, 176-177.

response pattern can be recorded within the same spotlight of attention so that cause-and-effect relations between them can be perceived.<sup>81</sup>

In his lecture: “The Alexander Technique for Musicians” in 1975, Jones stated the importance of developing a unified field of awareness (*unified field of attention*) through Alexander Technique to the musical performances.

For a performer, the Technique is a method for using kinesthetic cues--- the sensations of tension, effort, weight and the like---in order to organize his field of awareness in a systematic way, so as to take in the whole of what he is doing instead of just a part, and to accomplish what he aims to do without unwanted side effects.<sup>82</sup>

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<sup>81</sup> Frank Pierce Jones, *Freedom to Change*, 177.

<sup>82</sup> Frank Pierce Jones, “The Alexander Technique for Musicians.”

## CHAPTER 4

### RESEARCH METHODOLOGY

Playing the double bass is an athletic event, perhaps the most gymnastic of all musical instruments.<sup>83</sup>

Jeff Bradetich

As a petite female bass player, I had cultivated much improper habitual muscular tension since the very beginning of my bass studying. I had a very wrong idea about the use of body strength in relation to playing my bass. I felt intimidated by the size of my bass and doubted that someone as small as I could play it without a great deal of muscular effort. I also believed that I needed to apply a great deal of muscular effort to my bass playing in order to be heard. This excessive muscling blocked my energy and robbed me of the flexibility I needed for body coordination. The result of this extra efforting was that both left and bow hands, as well as my neck, became extremely tight and uncomfortable. After my daily practice sessions, orchestra rehearsals or performances, the pain in my shoulder and back became my faithful companion. I thought this was normal for being a bassist, a price I had to pay to be in this profession. For a long time I was in denial about the consequence this kind of misuse of myself. What tipped the scale for me was the addition of more technically and physically demanding repertoire (I was studying such pieces as the Brahms' *Cello Sonata in e minor* and *The Butterfly Lovers* Violin

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<sup>83</sup> Jeff Bradetich, *Double Bass: the Ultimate Challenge* (Idaho: Music For All To Hear, Inc., 2009), 3.

Concerto) to my already busy rehearsal and practicing schedule. It was then that I realized I could no longer cope with the strain and that I had to find a solution to my problem.

Because of the size and characteristics of the double bass, bass players must have much more physical strength and endurance than others to accomplish performance requirements, such as the necessity for a solid left hand articulation, making the instrument speak clearly, to have singing phrases and to be heard in fast passages. Also important is a strong right hand with support from one's body weight to achieve a full projection of sound. Compared to other stringed instrument players, bassists must use a great deal more energy than other string players; hence, good bodily coordination with a flexible and free use of physical energy in execution is strikingly important.<sup>84</sup>

In addition, "stiffness, being muscle bound and a lack of flexibility" are considered the general problematic issues in bass playing.<sup>85</sup> Quite commonly, bassists tend to use excessive muscle energy to play the instrument, more than is actually needed. For instance, putting too much unnecessary pressure in pressing down the string affects the flexibility of the left hand. Tension also occurs in the attempt to hold the bow tightly due to the fear of losing control of the bow. Needless to say, applying unnecessary muscular effort in drawing the bow across the

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<sup>84</sup> Jeff Bradetich, *Double Bass: the Ultimate Challenge*, 3-4.

<sup>85</sup> *Ibid.*, 4.

strings not only chokes the vibration of the string, producing poor quality of sound, but also creates excessive physical tension that causes pain.

Applying the Alexander Technique's principles could be beneficial to bass players, as it has been found to be for other musicians. Through "a process of self-observation and self-analysis wherein one becomes intimately knowledgeable about one's own habits so that one can suspend habitual muscular tightening (sometimes called downward pull), where it exists, and gradually consciously replace it with constructive behavior,"<sup>86</sup> this application of Alexander Technique strategies might help overcome muscular tension. Essentially, this allows one to search for the most effortless way to play the instrument by developing a conscious awareness of those bodily conditions which are causing the tension and by using a specific process designed to neutralize those tensions, which result in aches, pains and injury.

### **Research Design**

Narrative inquiry is increasingly used in studies of educational experience. It has a long intellectual history both in and out of education.

The main claim for the use of narrative in educational research is that humans are storytelling organisms who, individually and socially, lead storied lives. The study of narrative, therefore, is the study of the ways human experience the world.<sup>87</sup>

F. Michael Connelly and D. Jean Clandinin

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<sup>86</sup> Barbara Conable, *What Every Musician Needs to Know about the Body: The Practical Application of Body Mapping to Making Music*, Rev. ed (Chicago: GIA Publications Inc., 2000), 5.

<sup>87</sup> F. Michael Connelly and D. Jean Clandinin, "Stories of Experience and Narrative Inquiry," *Educational Researcher* 19 (June-July 1990), 2.

Narrative inquiry is a discipline deriving from a broader scope of qualitative research. Because of its concentration on the quality of human experience, narrative research has been widely applied in many fields of social science. Narrative could be either the phenomenon or method, or both.<sup>88</sup> “Narrative names the structured quality of experience to be studied, and it names the patterns of inquiry for its study. To preserve this distinction we use the reasonable well-established devices of calling the phenomenon ‘story’ and inquiry ‘narrative.’”<sup>89</sup> “As a method, it begins with the experiences as expressed in lived and told stories of individuals.”<sup>90</sup> Narrative research applies the varied analytic practices to interpret a human experience in a holistic and organized story form. During the process, the researcher concentrates particularly on one or two individuals to study and uses the field transcripts including journals or diaries, pictures, notes from field observation, letters, auto ethnography, artifacts, and interviews, as the units of analysis to create meaningful narrative telling.<sup>91</sup>

‘Shock to the Senses’, a book review by Siri Hustvedt, was published on *The New York Times*. Hustvedt talks about a book, *Hallucinations* which is the latest medical publication written by the neurologist, Oliver Sacks. He “explores the power of hallucinations through

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<sup>88</sup> F. Michael Connelly and D. Jean Clandnin, “Stories of Experience and Narrative Inquiry,” 2.

<sup>89</sup> Ibid.

<sup>90</sup> John W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3<sup>rd</sup> ed. (NY: Sage Publications, Inc, 2012), 70.

<sup>91</sup> Ibid.

first-person accounts” and writes as the third-person, who believes there is a close relationship between each patient’s experience of illness and his/her symptom and disease.<sup>92</sup> Sacks makes a point that medical diagnosis should include a holistic approach to defining and healing the body and mind. As Hustvedt describes,

He (Sacks) believes the details and nuances of first-person reports matter in the practice of medicine, not only for making a diagnosis, but for understanding the patient’s story as a whole and how it affects both symptom and disease.<sup>93</sup>

Further, Hustvedt addresses the importance of Sacks’ medical work and points out the methodological problem which exists in the medical field. She states,

I have met dozens of physicians who came to their specialty for private reasons- either they or their loved ones suffered from the diseases or conditions they then set out to treat- but few of these doctors include their own pathologies or stories in their papers and lectures. This reticence is as theoretical as it is personal. The third-person, “object” view rules science, and the medical professional who exposes himself or herself risks appearing “soft”. Sacks includes his own experience as illustrative of a larger point...There are growing numbers of people in science who agree with him.

The rise of narrative-medicine departments like the one directed by Rita Charon at Columbia University, in which doctors draw insights from and explore forms of literature for their work with patients; the growing criticism

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<sup>92</sup> Siri Hustvedt, review of *Shock to the Senses*, by Oliver Sacks, New York Times, December 28, 2012.

<sup>93</sup> Ibid.



from within neuroscience itself of the computational theory of mind and its machine metaphors of software and hardware, wiring, and processing; and a rekindled awareness that the accumulation of ever more voluminous data (that) does not constitute a theory of mind are signs of an upheaval in thought. But these debates remain mostly inside academia.<sup>94</sup>

*Hallucinations* is a specific kind of medical literature covering the human sensory experience, in which Sacks applies an atypically “descriptive, narrative, case-oriented medical writing he has himself called ‘romantic’” to demonstrate his own experience with each patient.<sup>95</sup> Sacks explains why he applies the idea of a “romantic science” in this work. He states in the introduction,

I think of this book, then, as a sort of natural history or anthology of hallucinations, describing the experiences and impact of hallucinations on those who have them, for the power of hallucinations is only to be understood from first-person accounts.<sup>96</sup>

Sacks’ description of hallucinatory perception is difficult to interpret and explain to readers, because it is a very natural and personal sensory experience. I had encountered the same difficulty in my Alexander study. To describe my personal kinesthetic experience and have my readers’ full understanding, has turned out to be extremely challenging to me. It is like

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<sup>94</sup> Siri Hustvedt, review of *Shock to the Senses*.

<sup>95</sup> Ibid.

<sup>96</sup> Ibid.

attempting to describe how I feel about the music to a person, who has never experienced it before.

After reading Creswell's definition of the features and types of narrative studies, I found this best describes the methodology which I have been using to interpret my study of Alexander experience. In *Qualitative Inquiry and Research Design: Choosing among Five Approaches*, the author Creswell lists the features of narrative research and states that most of narrative studies include these ingredients, but not necessary applying them all.

1. Narrative researchers collect stories from individuals (and documents, and group conversations) about individuals' lived and told experiences...
2. Narrative stories tell of individual experiences...
3. Narrative stories are gathered through many different forms of data, such as through interviews...observation, documents, pictures, and other sources of qualitative data.
4. Narrative stories often are heard and shaped by the researchers into a chronology...
5. Narrative stories are analyzed in varied ways...
6. Narrative stories often contain turning points...
7. Narrative stories occur within specific places or situations...<sup>97</sup>

I, as the first and the third-person of my study include my own experience with my Alexander teacher to demonstrate my Alexander exploration into my double bass study.

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<sup>97</sup> John W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3<sup>rd</sup> ed. (NY: Sage Publications Inc, 2012), 71-72.

Therefore, I believe that by coupling traditionally descriptive and narrative writing style, which Creswell called “autoethnography,” will help readers to understand my story as a whole. Autoethnography, a form of narrative research, “is written and recorded by the individuals who are the subject of the study.”<sup>98</sup> Muncy gave the definition of autoethnography in the following,

As the idea of multiple layers of consciousness, the vulnerable self, the coherent self, critiquing the self in social context, the subversion of dominant discourses, and the evocative potential.<sup>99</sup>

The above reasons have convinced me to apply narrative research as my research methodology as it is the best way for presenting my problem and documenting effects of my Alexander Technique study to readers.

### **The Need for the Expertise of an Alexander Teacher**

The Alexander Technique focuses on reviving one’s kinesthetic sense and the coordination of it in relation to the circumstances of one’s environment. Learning the Technique by reading relevant literature can assist one towards understanding the general idea of its concepts and the benefits it may bring. However, one may usually not be aware of his/her personal condition of muscular usage; from the physiological point of view, one often ignores the physical sensory

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<sup>98</sup> John W. Creswell, *Qualitative Inquiry and Research Design*, 73.

<sup>99</sup> Ibid., 72.

information which is signaled from the nerves of muscles and joints to the brain.<sup>100</sup> Another issue is having an unreliable sensory appreciation in which a wrong action of the body feels right to the user.<sup>101</sup> These factors add difficulties and confuse one's perception of his/her body. Complicating factors may be unbalanced posture and excessive tension. Usually these occur when the person becomes overly focused on doing an activity by trying too hard to achieve a result. Inevitably, this kind of extra effort results in one muscle group becoming overly tightened, thus compromising the balanced muscular tension that results in ease of movement.<sup>102</sup> “One of the unique features of Alexander Technique lessons is the role of the teacher. Her/his hands not only sense the state of the muscles of the pupil, but also the trained hands help the pupil become aware of the muscles as they are touched.”<sup>103</sup> The process involving the sense of touch is intended to give one a new sensory experience of proper body coordination, using the least action to achieve maximum control, while helping one achieve a more naturally advantageous posture.

Since there are a wide range of instructors of Alexander Technique with varying backgrounds, one can acquire a very diverse Alexander Technique experience. In an Alexander

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<sup>100</sup> David Garlick, *The Lost Sixth Sense*, 53.

<sup>101</sup> F. M. Alexander, *The Use of the Self*, 82.

<sup>102</sup> David Garlick, *The Lost Sixth Sense*, 53.

<sup>103</sup> *Ibid.*, 13.

lesson, it is essential to help one understand the problems of his/her misuse of the body, prevent one from overreacting in correcting undesirable habitual motions, and awaken one's muscular sense to allow the body to establish appropriate coordination in harmony with one's surroundings and the gravity of the Earth. To do so, there is an obvious necessity to have assistance from the skilled hands of an Alexander Technique teacher in the process of learning.

I was fortunate to be able to study with Prof. Patricia O'Neill. Prof. O'Neill is a highly experienced and certified Alexander Technique teacher, an internationally recognized singer and voice professor, as well as an accomplished musician who has been teaching the Technique at Louisiana State University about ten years. Many of her students, who are in the field of the performing arts, especially in the opera, theater, and other music professions, have benefited profoundly from her enlightened Alexander Technique teaching. Professor O'Neill has been a certified teaching member of Alexander Technique International since 2001. She completed her training at the Alexander Alliance in Philadelphia, under the directorship of Bruce and Martha Fertman. Her further explorations of the Alexander Technique have included study with many master Alexander Teachers, including Elizabeth Walker, Lucia Walker, Meade Andrews, Glenna Batson, Judy Stern, Barbara Kent, and Frank Ottiwell, as well as Lyn Charleson and Michael Frederick at the Alexander Training Institute in Santa Monica, California. In 2004, her paper entitled "Thought Shepherding in Singing" was published in The Congress Papers of the 7<sup>th</sup> International Congress of the F. M. Alexander Technique. She has

traveled nationally and internationally to perform and teach workshops and master classes in singing and the Alexander Technique.

I took the Alexander Technique course which was given by Prof. O'Neill, twice a week (each class lasted about 50 minutes), for a semester during my master's degree study at Louisiana State University. Nearing the end of my doctoral study, I began to be overwhelmed by demanding repertoire I was preparing for a recital. It was then I realized I needed further Alexander Technique study to cope with lingering issues of muscle tension which ultimately precipitated the cancellation of a recital. I began taking private lessons, studying with her weekly in 30 to 45 minute sessions for over a year and a half.

### **Documentation of Data Collection**

Narrative inquiry in the social sciences is a form of empirical narrative in which empirical data is central to the work. The inevitable interpretation that occurs, something which is embedded even in the data collection process, does not make narrative into fiction even though the language of narrative inquiry is heavily laced with terms derived from literary criticism of fiction.<sup>104</sup>

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The method of data collecting is various in narrative research. Data can be in any kind of form, as long as they are made by "the researcher and practitioner in a collaborative

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<sup>104</sup> F. Michael Connelly and D. Jean Clandinin, "Stories of Experience and Narrative Inquiry," *Educational Researcher* 19 (June-July 1990), 5.

relationship.”<sup>105</sup> In my study, I applied journal, pictures, video observation, and interviews as my data collection tools to build the structure of my Alexander story.

Journal is one of the sources of data in narrative research, which can be made either by the subject of the study or the observer in the field work.<sup>106</sup> In order to understand what caused my difficulties in mastering double bass playing, the circumstances of daily practicing, as well as the process of playing Brahms’ *Cello Sonata in e minor* and *The Butterfly Lovers* Violin Concerto, a journal was kept that provided notes taken after practicing.

The collected notes were brought to the lessons, where my teacher and I discussed noted issues together. My Alexander teacher helped me to discover what caused the problems based on sophisticated observation, after reading my journal. During the lessons, the diagnosis by observation from my Alexander teacher was always in process, with verbal instructions given depending on circumstance and observation. After each lesson, I would observe and review what I learned in the lesson and reconstruct it in my journal. This gave me a path to document my progress.

Pictures are one of the forms of data collection in narrative study. Simple illustrative drawings and various pictures are presented for the purpose of helping readers understand the issues I addressed in this study. Some of pictures aim to illustrate common wrong habitual

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<sup>105</sup> F. Michael Connelly and D. Jean Clandnin, “Stories of Experience and Narrative Inquiry,” 5.

<sup>106</sup> Ibid.

patterns compared to proper postures in bass playing. The pictures of body structure are provided as an essential aid in learning the Technique with accurate body mapping, and also document the changes I made as a result of studying Alexander Technique.

The process of each Alexander Technique lesson was recorded through my video recorder on my iPad. Each lesson tended to focus on one concept. During the lesson, my Alexander teacher would explain some aspect of the Technique, such as a procedure of the Technique to release bodily tension. Video observation serves the primary source of data in my narrative research. It provided active recordings of my Alexander lessons, as well as a means to go back and identify strategies that were helpful in my recovery.

Interviews are one of the forms of data collection in narrative study as well. They are made through the collaboration of researcher and participant. While the meeting and transcripts are made, interviews “become part of the ongoing narrative record.”<sup>107</sup> Interviews with Alexander Technique Prof. Patricia O’Neill and double bass Prof. Yung-Chiao Wei were conducted to get third party verification of the problems I was experiencing and progress that I made as a result of Alexander Technique lessons. I asked each of them to tell me what the difference was in my performance before and after studying Alexander Technique.

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<sup>107</sup> F. Michael Connelly and D. Jean Clandnin, “Stories of Experience and Narrative Inquiry,” 5.



## CHAPTER 5

### THE FUNDAMENTALS OF DOUBLE BASS PLAYING IN RELATION TO THE PRINCIPLES OF ALEXANDER TECHNIQUE

The violin does not play itself...Man alone among living creatures is capable of performing this feat. Unique through the act may be, it is comprised of simple and quite ordinary voluntary movements...The strings are made to vibrate by contact with a bow drawn with different speeds and attacks by the right arm and hand. The precision, range and variation of the movements responding to the will of the seasoned player are acquired through a process of painstaking perceptual and motor learning. Those of the virtuoso performer appear to flow in a succession of exquisitely timed and effortless sequences that yield a singing tone amenable to limitless diversity in quality and connotation. How is this skill acquired? Through the correct use of inborn bodily mechanisms which control and regulate voluntary movements. *There is no other way.*<sup>108</sup>

F. A. Hellebrandt

In my very first Alexander lessons, I came in suffering from serious physical pain. I had muscular strain around the neck, upper back, and the right side of my lower leg. The left side of my lower back ached. Those symptoms constantly occurred in my daily activities, including while playing the bass. To begin with my Alexander Technique teacher had me play the bass with open strings to simplify my thinking process and allow more room for introducing the Alexander concepts. She found some apparent problems which might have been the cause of the physical pain; I was tightening my upper chest and lifting my shoulder all the time while

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<sup>108</sup> Paul Rolland and Marla Mutschler, "The Teaching of Action in String Playing: Developmental and Remedial Techniques; Violin and Viola," 10.

playing. In addition, I seemed to misunderstand what comprised my body's center of gravity. I thought that the center of gravity of the body was at the back of my spine, which was incorrect. Actually, the center of gravity runs through the center of the body. This new bit of information was to be the beginning of a process of psycho-physical reeducation that would change my approach to string bass playing.

The first part of this chapter will demonstrate the application of the Alexander Technique to the fundamentals of double bass playing, as well as present a case study of how the Alexander Technique has improved my personal difficulties in playing. The thoughts and practices of two well-known 20<sup>th</sup> century musicians, violinist Imre Waldbauer, and legendary cellist Pablo Casals, with their valuable pedagogical points of view in string playing, will be incorporated into the discussion of some of the sections. The topics of the sections, which are Balanced Body Posture in Standing and Sitting, Breathing (Exercises for Sensing the Natural Breathing Process), Body Freedom (Neck Tension and Tension in Abdominal Muscles), Focusing and Directing Energy, Hand and Arm Structure and Movement, Back Support, Achieving a Full Tone, and Vibrato, deal with specific issues I encountered in my bass playing.

The two Alexander Technique procedures, Constructive Rest and Position of Mechanical Advantage (Monkey), are helpful exercises for bassists, and are designed for gradually releasing over-contracted muscles into a state of ease and freedom and will be presented in the final part of this chapter.

## **Balanced Body Posture in Standing and Sitting**

After studying the Alexander Technique, my body map has become much more accurate. Body mapping<sup>109</sup> has proven a great benefit for grounding myself and enhancing my body coordination in bass playing. Therefore, I think it is important to introduce the more elementary principles of human somatic functioning both in standing and sitting, before introducing the discussion of how to balance the bass while playing, particularly in a sitting position. Many double bass pedagogues have described in great detail how to hold and balance the bass while playing in a standing position. Hence, the issue about standing in playing will not be addressed here. However, the necessity of balancing the bass while sitting has been neglected. Therefore, a description of a procedure to balance the bass naturally when playing in a sitting position will be discussed.

In both standing and sitting positions, a thorough knowledge of the procedure Alexander called “position of mechanical advantage” is essential. See a full description of that procedure at the end of this chapter.

### **Standing**

The line of gravity passes through the ear and the center of gravity, a point roughly between the lumbar vertebra and the umbilicus (“belly button”).

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<sup>109</sup> See Chapter 2, the description about Barbara Conable, *What Every Musician Needs to Know about the Body and How to Learn the Alexander Technique*, in the section of Other Works by Important Alexander Technique Figures, p.20.

Note particularly that the line passes near the front of the knee and clearly in front of the ankle joint. This means the natural tendency of the upright human person is to fall forwards. Hence the muscles at the back of the calves, thigh, trunk and neck (so called “extensor” muscles) need to be active to keep the person extended or upright. Muscles at the front of the body (flexor muscles, to hunch a person such as for heavy lifting) need to be much less active (Figure 3).<sup>110</sup>

David Garlick

Because of the elegant boney structure of the body, it is possible for the biped to achieve uprightness with a minimum of muscular effort. The body’s weight is transferred through the columnar or front of the spine, then through the pelvis and hip joints to the upper leg bone and the two lower leg bones, and finally to the bones of the feet. When this boney structure is in proper alignment, humans do not need to hold themselves muscularly. Many humans, for fear of falling or in a misguided attempt to achieve good posture, overly tense their muscles, compromising the ability of the postural muscles to support their skeletal structures in standing.<sup>111</sup>

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<sup>110</sup> David Garlick, *The Lost Sixth Sense*, 16.

<sup>111</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, April 4, 2013.

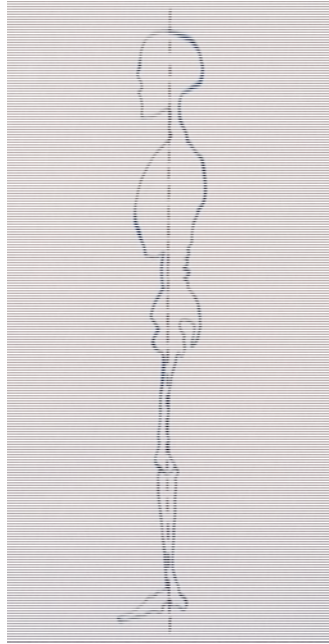


Figure 3 The line of gravity of human body

The major key to activating these postural muscles is the proper alignment of the head neck joint, which then allows for the rest of the skeletal structure also to move into alignment. Without this proper alignment, the muscles which move legs and arms cannot achieve the liveliness and freedom necessary to accomplish complex tasks such as playing the string bass. Another important tool for understanding proper body alignment in uprightness is the concept of the body's center of gravity (Figure 3). Many humans mistakenly believe that the body aligns itself to an imaginary line at their backs. Many students can perhaps recall their teachers asking them to line their bodies against a wall in order to achieve the correct posture in uprightness. As displayed in this figure, one sees that body actually aligns itself around the line of gravity,

which runs through the center of the body. With this shift in perception fully understood, human beings can use gravity to find an effortless “up.”<sup>112</sup>

Often in the human experience, the feet are the only part of the body contacting the earth. Human beings typically are not aware of the elegant boney structure of the foot whose design serves them so well in uprightness and in movement. For bassists, grounding themselves through their feet with mobile legs is obviously important in order to steady their instruments, whenever standing or sitting. According to Garlick’s statement above, the center of gravity of the foot is located in the front of ankle joint, which is the arch of the foot. In the following paragraph, I will introduce the concept of the tripods of the feet, and explain its importance in relation to proper body alignment while standing and also while playing the bass in a sitting position.

The foot’s three points of contact with the ground must equally bear the weight of the body. Some Alexander teachers call this phenomenon the tripods of the feet (Figure 4).



Figure 4 The bottom of the foot indicating the three points of balance (the green parts)

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<sup>112</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, April 4, 2013.

It is important that this balance is achieved without excessive tightening of the leg muscles, allowing the bony structure of the legs to support the body in standing. By using the force of gravity, the body will find a very natural upright position. The toes serve only to balance the body in uprightness. The body cannot be naturally upright if one does not allow the force of gravity to play its part and the grounding of the legs to the earth is what facilitates a natural stance. If one lets go of the impulse to hold himself/herself up, in essence gives his weight to gravity, the postural muscles, whose job it is to hold the body up, will become engaged to give the body an effortless up.

Alexander teachers and artists have reported that it is possible to sense the earth's vibration and energy through the feet. The following conversation is an excerpt from *'Just Play Naturally'*, between a cellist, Vivien Mackie and the Alexander Technique teacher, Joe Armstrong. During the conversation below, Mackie shares some of Casals'<sup>113</sup> concepts in teaching about the connection between the feet and the ground:

JA: While we're still fairly close to the subject of Alexander, can you say when it was that it occurred to you that what Alexander discovered was something that in some way or another Casals understood or perhaps possessed in some natural way?

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<sup>113</sup> See Chapter 2, the description about Pablo Casals, the footnote 21, p.17.

VM. I don't remember exactly when it was. But I do remember when I came across Lorca's essay on 'duende'<sup>114</sup> twenty years later, I thought, 'Of course, that's what Casals has got.' I'd felt from the beginning that Casals had got earth in his blood. Lorca says, 'duende comes up from the ground.' There was this tremendous connection with the ground in Casals, as if he came up out of the ground. I think it was sort of something that came up through his feet. And it came 'U,' 'P,' UP! You know? And I think that's what I heard when I listened to his Bach recordings and it frightened me off.<sup>115</sup>

I have come to realize how profoundly the connectedness of my feet to the earth can inform music making.

### **Sitting Position**

When playing bass while sitting, the upper bout of the instrument rests close to the left side of the abdomen. It can be challenging to play in the high register for an extended period of time. Thus, it is important while reaching the higher registers, that the body moves forward from the hip joints without collapsing into the instrument. The body must not collapse into the

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<sup>114</sup> "In 1933 Spanish poet and theater director Federico Garcia Lorca gave a lecture in Buenos Aires titled "Play and Theory of the Duende" in which he addressed the fiery spirit behind what makes great performance stir the emotions: "The duende, then, is a power, not a work. It is a struggle, not a thought. I have heard an old maestro of the guitar say, 'The duende is not in the throat; the duende climbs up inside you, from the soles of the feet. Meaning this: it is not a question of ability, but of true, living style, of blood, of the most ancient culture, of spontaneous creation... everything that has black sound in it, has duende.'" [http:// hotword.dictionary.com/duende](http://hotword.dictionary.com/duende).

<sup>115</sup> Vivien Mackie, *'Just Play Naturally': in conversation with Joe Armstrong; an Account of her Study with Pablo Casals in the 1950s and her Discovery of the Resonance between his Teaching and the Principles of the Alexander Technique* (Duende ed. N.p: Xlibris Corporation, 2006), 78.



instrument. The body is the body; the instrument is the instrument.<sup>116</sup> When doing so, the spine of the bass will be rested naturally closer to the bassist's body, as in the action of hugging another person. The shape of the left hand on the fingerboard should be like holding an egg. The wrist should be firm, but not tense. The fingers should be able to move freely, supported by the entire arm structure. The left hand thumb functions as a pivot that balances the rest of the fingers (Compare Figure 5 and 6 to Figure 7 and 8).



Figure 5 The improper hand shape (front). Fingers are attempting to press down the string without the aligned support of the arms into the back, using too much tension to press down the string.

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<sup>116</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, August 3, 2011.



Figure 6 The improper hand shape (back). Thumb is collapsing under too much finger strain without the support of entire arm structure.



Figure 7 The proper hand shape (front)



Figure 8 The proper hand shape (back)

The left knee should gently touch the back of the instrument without holding the instrument up. The function of both left knee and leg is to manipulate the angle of the instrument in order to allow the right hand to play at a closer angle, thus making it easier to reach the string. In general, most orchestra excerpts involve more in the lower register on the fingerboard. For playing orchestral excerpts on the G string, the bass is slightly turned towards the body; when playing on the E string, the left knee helps turn the bass more outwards, thus, providing more space for the bow to access the string. In addition, when a bassist plays in a higher register on the fingerboard, especially on the G and D string, which most commonly occurs in solo playing, the left knee should be gently opened to the left side, as is done on the E

string in orchestral playing. As a bassist of small stature, I have found it a challenge to balance the bass while playing in the higher register. Because of its size and the length of the fingerboard, I center the bass directly in front of me, as cellists center their instruments. When doing so, I will be able to extend my left arm to reach the higher register with ease. The difficulty of the repertoire influences this decision. In general, this is much easier for balancing and coordinating the bass while playing. Simultaneously, the arms extend out of the player's back, as an eagle spreading its wings ready to fly. Ultimately, the body embraces the whole bass, as a jaguar pounces on a tree with powerful strength and graceful poise. Playing in this way naturally helps the bassist ground his/her weight of the left arm onto the string. In order not to create unwanted tension around the neck and shoulder, the upper arm should maintain its relationship with the torso and the shoulder should not be lifted but be in a naturally relaxed position dictated by the force of gravity.

While sitting, the player should allow the body to organize itself over the sit bones (Figure 9 and 10). Both sit bones rest on the stool (Figure 13). The weight of the torso is delivered downward onto the sitting bones, while the legs extend downwards and away from the hip joints and the right foot fully contacts the floor while the arch of the left foot contacts the rung of the stool (Figure 11, 12, 13, and 14).



Figure 9 Sit bones at bottom of the pelvis

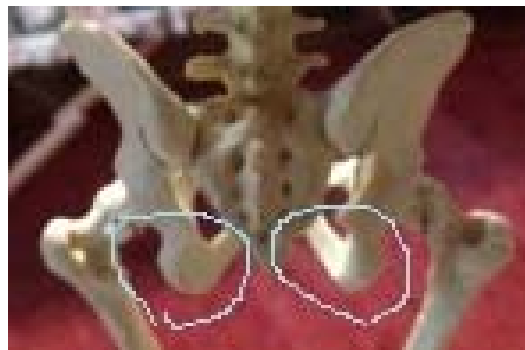


Figure 10 Sit bones

Because of the size of double bass, and the requirement for the certain height of the stool in playing, for female bassists of small stature, it can be helpful to wear high heels so that they can sense both sit bones contacting the stool. I made the decision to wear high heels, because, otherwise, I found it difficult to maintain a stable contact through the sit bones (Compare Figure 13 to Figure 15 and 16).

It is then necessary to soften muscles of the neck; the shoulders should be free and be allowed to away from each other and the head away from the shoulders; the muscles of the legs should be free as well, along with its joints (hip joints, knee joints, ankle joints and all the joints of the feet). They should just be allowed to “be there,” instead of consciously manipulating them towards a predetermined position. The wish to control the legs, knees, and positioning of the heels and feet does not lend itself to the feeling of security, but instead triggers a set of habitual misuses along with unnecessary tensions in the body. Therefore, one should feel the toes are lengthening and sense the heels contacting the ground with the sense that the pelvis connects to the torso as well as to the legs. “The pelvis serves a dual purpose. It is suspended from the head at the opposite end of the spine and therefore a counter balance to the head. One might imagine a rising hot air balloon. The basket of the balloon, suspended beneath the balloon, is like one’s pelvis; the rising balloon is like one’s head, moving forward and up. The pelvis is, therefore, following the head as it moves upward, and is also suspended from the head.”<sup>117</sup>

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<sup>117</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, October 4, 2011.



Figure 11 Balanced sitting posture (front)



Figure 12 Balanced sitting posture (side)





Figure 13 Balanced sitting posture with high heels (back). Both sit bones rest on the stool.



Figure 14 Balanced sitting posture. Both legs are sent away from the hips joints and feet are in contact with the ground.





Figure 15 Unbalanced sitting posture. The right side of the sit bone is not contacting the stool.

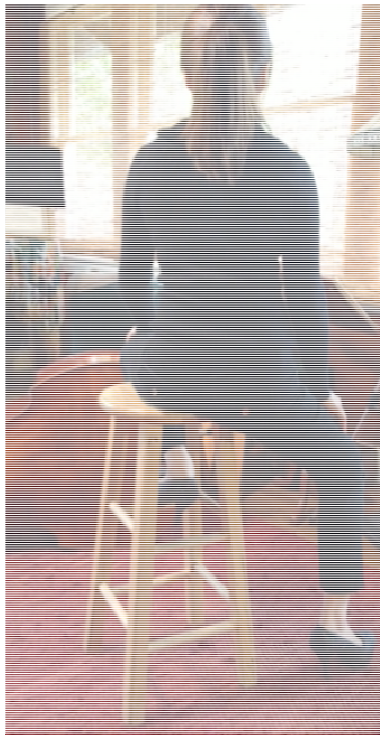


Figure 16 Unbalanced sitting posture with high heels.

## Breathing

We say that a person is a 'bad breather,' or that he 'breathes imperfectly.' But we must remember that this so-called 'bad breathing' is only a symptom and not a primary cause of his malcondition, for the standard of breathing depends upon the standard of general co-ordinated use of the psycho-physical mechanism. What we ought to say, therefore, in such a case is not that a person 'breathes badly,' but that he is badly co-ordinated.<sup>118</sup>

The act of breathing is not a primary, or even a secondary, part of the process...As a matter of fact, given the perfect co-ordination of parts as required by my system; breathing is a subordinate operation which will perform itself.<sup>119</sup>

F. M. Alexander

Without being aware of it, many people habitually tense their necks and hold their breath when they anticipate doing an activity that they think is important or difficult. This habitual pattern is also common among musicians, especially when performing an extremely difficult passage during orchestra rehearsals or in solo performances. In my case, excluding the misuse of the physical mechanism which was the result of improper coordination, the other primary cause for interference with free breathing stemmed from a psychological factor. Walter Carrington<sup>120</sup> observed that

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<sup>118</sup> F. M. Alexander, *Constructive Conscious Control of the Individual* (1923; reprint, Downing, Calif.: Centerline Press, 1985), 193.

<sup>119</sup> F. M. Alexander, *Man's Supreme Inheritance* (1910; reprint, London: Chatterson Ltd., 1946), 188.

<sup>120</sup> See Chapter 2, the description about Walter Carrington, the author of *Thinking Aloud*, in the section of Other Works by Important Alexander Technique Figures, p. 20.

Breathing can be interfered with and stopped by a wide range of things- psychological, emotional, mental, down to physical and muscular and so on. The effect of the interference is holding the breath. Holding the breath is really the thing that stops breathing.<sup>121</sup>

When I became aware of myself overly concerned with playing perfectly from the beginning to the end of a piece, without giving myself permission to make any mistakes, I found myself holding my breath. This psychological block not only interfered with my breathing, but also aggravated my coordination problem, resulting in a poor quality of performance. F. M. Alexander had a similar situation in mind when he considered the relationship between breathing and performance, writing, “thoracic rigidity and breathlessness-the one making the correct performance of the exercises impossible, the other interfering with the controlling forces concerned.”<sup>122</sup> When we lock the breathing mechanism, we prevent the energy from moving through the body. The energy is the life force of a performance. Without a free flow of energy the performance becomes stale and lifeless.

In *Indirect Procedures*, the author, Alcantara, further explaining about Alexander’s concept of breathing, described,

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<sup>121</sup> Walter Carrington, *Thinking Aloud: Talks on Teaching the Alexander Technique*, ed. Jerry Sontag (CA: Mornum Time Press, 1994), 64.

<sup>122</sup> F. M. Alexander, *Articles and Lectures*, 2<sup>nd</sup> ed., 82.

The practical consequence of Alexander's understanding of breathing is that you do *nothing* to alter breathing *directly* in an Alexander lesson. There are no exercises in which you are asked to change the mechanics or the speed of your breathing, to count while you breathe in or out, to hold your breath or force it out, and so on. Instead, you must first clear your mind of all preconceived ideas you may have about breathing.<sup>123</sup>

Since there are many misconceptions about how the body breathes, it can be helpful to understand how the breathing mechanism actually functions on its own. When one inhales, the spine gathers to support the movement of the ribs up and outwards; while exhaling, the spine lengthens, and the ribs move down-and-in.<sup>124</sup> Inhalation is initiated in the muscles of the pelvic floor. In order get a sense of this action, one need only hold the breath until the body needs it. When the brain senses that the body needs breath, the muscles in the pelvic floor begin the inhalation process, which includes the flattening of the diaphragm, the gathering of the spine and the lifting of the ribs from their joints at the spine. On the exhalation, the diaphragm returns to its domed position, and the lower abdominal muscles release inward, the spine lengthens and the ribs move down from their joints at the vertebrae of the spine.<sup>125</sup>

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<sup>123</sup> Pedro de Alcantara, *Indirect procedures: a musician's guide to the Alexander Technique* (New York: Clarendon Press, 1997), 97-98.

<sup>124</sup> Barbara Conable, *What Every Musician Needs to Know about the Body*, 81-83.

<sup>125</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, November 22, 2012.

Barbara Conable further explained the important relationship between breathing and the pelvic cavity in *What Every Musician Needs to Know about the Body*, she said,

The pelvic cavity, interior to the pelvic bones, contains muscles that fan out along the interior pelvic wall, some of which are continuous with the base of the diaphragm, and all of which provide support for breathing when they are allowed to be engaged as the spine lengthens on exhalation.<sup>126</sup>

In order to breathe freely and keep the body in a good balance, one needs to keep these muscles in the pelvic cavity free to flex and release as needed.<sup>127</sup> The breathing mechanism can function both voluntarily and involuntarily. As a musician, I have found it vital to cooperate with its involuntary function as much as possible.

### **Exercises for Sensing the Natural Breathing Process**

There are exercises for helping musicians to sense the natural breathing process. One is lying in prone position on pillows as suggested by Barbara Conable. Another is the procedure initiated by F. M. Alexander called “the whispered ah.” Both are presented in the following as described by my Alexander teacher.

Pronated on Pillows. The upper body lies in prone position on large pillows (Figure 17 and 18).

The number of pillows depends on the size of the person. Two is the most common, but there

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<sup>126</sup> Barbara Conable, *What Every Musician Needs to Know about the Body*, 78.

<sup>127</sup> Ibid., 79.

should be enough height to allow the head and limbs to hang from the pillows and rest on the floor naturally. Then one simply allows oneself to breathe without any interference. This position encourages the widening of the torso. It is also easier to sense the gathering and lengthening of the spine while inhaling and exhaling. In order to experience fully this process, one is encouraged to do this exercise for at least 20-30 minutes.<sup>128</sup>



Figure 17 Prone position (side)

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<sup>128</sup> My Alexander Teacher, Prof. Patricia O'Neill, who witnessed Conable's workshop on breathing at the National Association of Teacher's Singing National Convention in New Orleans, LA in 2004.

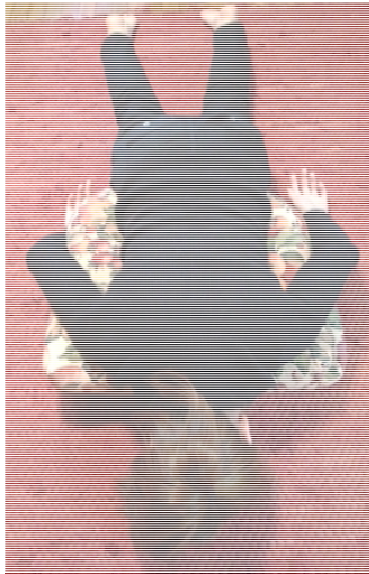


Figure 18 Prone position (back)

The Whispered 'Ah'. (1) While breathing in through the nostrils, think of something pleasant to encourage spaciousness inside the nasal resonances. (2) When exhaling, release the jaw slightly forward and down, and then allow the body to release the air through laryngeal and pharyngeal areas while whispering 'ah'. (3) The inhalations and exhalations mimic a concentric series of waves. While breathing in through the nose, one should enjoy how it feels. Don't exhale too soon. One has to take a little bit of time to release the jaw forward and down and make the 'ah' sound.

My Alexander teacher suggested that one should do the pillow exercise with the whispered 'ah', as this would gradually help one fully sense how not to interfere with the breathing process and help one understand what movements happen in the entire body while breathing.

## Body Freedom

Proper balance throughout the body would free one from tension.<sup>129</sup>

Imre Waldbauer

My Alexander teacher pointed out that I had a tendency to narrow my upper torso and hold my body rigidly while playing the bass. As I became aware of the tension I was creating, I realized how severely I was blocking the free flow of energy throughout my body, making it more difficult play my instrument with ease. My teacher pointed out to me that the body is always in motion, balancing itself in all activity and that my job was to remove the excessive tension that prevented that from happening. In essence she was suggesting that I must do less rather than more in order to allow that kind of coordination to happen involuntarily rather than voluntarily.<sup>130</sup> There is no fixed proper body posture throughout the performance while playing. “What thwarts ease in coordination most is holding the body rigidly. A body likes

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<sup>129</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer” (DMA thesis, the University of Iowa, 1977), 58.

<sup>130</sup> “There are two categories of muscular activity, voluntary and involuntary. Voluntary activity we experience directly. When... move... arm to reach for a glass of water...feel the sensation of its moving overtly, as movement...Involuntary work indirectly, as a sense of being supported or balanced or heart-beated or breathed. Typically those involuntary patterns lengthen us, especially when they involve the spine...The purpose of the Alexander Technique is to learn to take optimal advantage of the bony structure (mechanical advantage, in Alexander’s words) and of involuntary muscular support for voluntary movement.” Barbara Conable, *How to Learn the Alexander Technique: A Manual for Students*, 6-7.



movement. Even we stand still; there is a lot of movement happening in the body, as though the body was juggling itself into uprightness.”<sup>131</sup>

### **Neck Tension**

Habituated tensing of the muscles of the neck results in a predictable and inevitable tensing of the whole body. Release out of the tensing in the whole must begin with release in the muscles in the neck.<sup>132</sup>

Barbara Conable

Neck and shoulder aches have been bothersome to musicians, especially for bassists. The most common technical issue occurs when bassists have anxiety to move their left hand fast back and forth over the entire length of the fingerboard; they have intention to tense their neck. In my personal experience, I would habitually watch the fingerboard while playing, to avoid playing out of tune. I could not remember a time that I had not done this. This long ingrained habit gave me a false sense of security that I was in control of my body and that a secured fingering for intonation was assured. Eventually, by tracing this habit back to its source, I realized I was dictating physical action with excessive will power. Thus, the mind dominated the physical actions and treated the body as a slave to work for the intellect. However this imbalance in the mind/body relationship had led to the cause of my neck problems. It actually

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<sup>131</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 12, 2012.

<sup>132</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique*, 4.

provided greater potential for an increase in neck tension and immobilized the effortless functioning of the head/neck/back relationship in bass playing.

One of the leading figures in the field of medical science, Scholar V. C. Abrahams,<sup>133</sup> who reviewed research about the function of the neck muscles in relation to animal motion,<sup>134</sup> stated “the evidence...that the neck plays a critical role in posture is overwhelming.”<sup>135</sup> Compared to any other muscles, the neck’s muscles contain the greatest amount of nerve receptors. Therefore, the information sent from the sensory nerves of the neck muscles to the brain has a significant influence on the brain, in regard to its operation of the physical organism.<sup>136</sup> The condition of the neck muscles is very important in controlling human posture and movement. This theory was explored by Dr. David Garlick in his research study of *The Lost Sixth Sense*:

Any movement of the head is detected with exquisite sensitivity by the neck muscle receptors. The strong inputs from the neck muscles then affect the muscles of the trunk and limbs to prepare the person to respond to the stimulus.<sup>137</sup>

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<sup>133</sup> A Professor of Department of Physiology in Queen’s University, Ontario, Canada.

<sup>134</sup> V.C. Abrahams, “The Physiology of neck muscles; their role in head movement and maintenance of posture,” *Canadian Journal of Physiology and Pharmacology* 55 (1977): 332-338.

<sup>135</sup> David Garlick, *The Lost Sixth Sense*, 29.

<sup>136</sup> *Ibid.*, 27-31.

<sup>137</sup> David Garlick, *The Lost Sixth Sense*, 29.

In addition, musicians are often seen bringing the head out of relationship with the rest of the spine, especially in sight reading. This habitual pattern of misuse also compromises the head/neck relationship, resulting in a collapsing forward of the torso and a narrowing and sometimes lifting of the shoulders which most often occurs unconsciously. After the head/neck muscles are contracted for a period of time, the tension along the neck to the upper back may result in shoulder pain.

In order to see the music more closely without compromising my head/neck relationship while sight-reading, my teacher suggested that I move my torso forward from my hip joints with my head moving forward from the head neck joint and then leading the spine up into length (Compare Figure 19 and 20 to 21 and 22). Then the integrity of the entire spine is maintained. It is important to allow the body to keep its connection to the stool, through the sit bones. In addition to sensing the sit bones, one becomes aware of the support of the bony structure of the legs and contact of the feet on the floor.

This exercise once again reminded me of the importance of the head/neck relationship and that there is never a need to compromise it while reading a score or, indeed, in human activity.



Figure 19 Incorrect posture while reading the score.



Figure 20 Incorrect posture while reading the score. The head is angled forward, and is not aligned with the torso.



Figure 21 Proper posture while reading the score.



Figure 22 Proper posture while reading the score. Head and torso are aligned.

## **Tension in Abdominal Muscles**

Tightening of the abdominal muscles compromises the free functioning of the breathing mechanism. When the breathing mechanism is operating freely, the breathing process is initiated in the muscles of the pelvic floor quickly followed by the muscles of the abdominal wall. Voluntary tightening of the abdominal muscles makes the proper engaging of the muscles of inhalation nearly impossible. There can be many reasons why one might habitually tighten the abdominal muscles. Usually the reasons have a psychological basis, and it can be important to understand the reasons before one can fully release the excessive tension and bring the abdominal musculature back into balanced support. In addition, tightening of the abdominal muscles can also pull the pelvis forward and compromise spinal alignment.<sup>138</sup>

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I developed the habit of tensing my abdominal muscles in my youth. This ingrained habit is probably one of the root causes of my lower back pain. Tensing my abdominal muscles, I discovered, was pulling my pelvis forward, thus drawing the lumbar part of the spine out of relationship with the rest of the spine. I further realized that free, easy breathing required the participation of my entire, properly aligned spine, which should gather on the inhalation and lengthen on the exhalation. Why do people find it so difficult to let go of bad habits when the benefits are clear? Most often for me the reason was so deeply ingrained that I had forgotten why I tightened my abdominal muscles. I ultimately discovered that the motivation was psychological. Over a period of several lessons, my Alexander teacher helped me trace the cause back to little girl who was frightened of displeasing her very strict piano teacher. I

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<sup>138</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, February 7 2013.

discovered that the tightening was an attempt to protect myself from my piano teacher and to “make” myself play perfectly in order to avoid displeasing her further. The variety of possible reasons for habitual tensing is as broad as the variety of human experience. Therefore, there is not one simple answer. Each human being must take a similar journey as mine to discover the psychological causes for his/her patterns of habitual tensing. Tightening of the abdominal muscles can also stem from a desire to look slim. I was among those women who are particularly motivated not to allow their bellies to appear too large or floppy. I realized ultimately that the consequences of doing so were too dire. Once I understood those consequences as described above, the choice for me was simple.

Whenever one talks, acts, or plays an instrument, muscular tension occurs as needed in different parts of the body. Muscle groupings work in balance with each other so that one is not working harder than another. It is important to sense the state of the musculature in activity so that one can distinguish whether the muscles, one is using are in a state of over tensing or at ease.<sup>139</sup> Muscles can lengthen, tense, and release. When describing the state of the musculature, it is important to understand the difference between relaxation and ease as well as good tension and bad tension. Good tension is sensed when the all the muscles of a muscle group are working in balance with each other. When this desirable state of good tension is achieved one will not sense pain, but a state of liveliness and ease. It is also undesirable for

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<sup>139</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 18, 2012.

muscles to be too relaxed; some tension is necessary. Waldbauer agreed with this point of view. His pupils recalled that “Waldbauer was always interested in keeping things relaxed (Dixon). But he also believed that complete relaxation was just as dangerous as tension (Wienandt).”<sup>140</sup> The key is to allow the muscles to find balance in activity. In the case of the abdominal muscles, an automatic tenseness is commonplace when one is talking. Many people hold the abdominal muscles tense all the time when talking, compromising the delicate balance of tension and release that accompanies unrestricted speaking. Applying the Alexander Technique principles to talking, the abdominal muscles should remain in a lively and free state, and tensing and freeing only with the intent of the speaker. The wisdom of Tai-Chi for the state of muscles is that they be “relaxed but not collapsed.”<sup>141</sup> This adage should apply in all human activity.

### **Focusing and Directing Energy**

The depth and richness of sound does not need to be created with excessive muscular effort, but from our inner source of power. Inner power originates from the core of the body, the lower Dan Tian.<sup>142</sup> Dan Tian is a Taoist expression for the primary energy reservoir in the body, which constantly sends power through the whole body, when one understands how to

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<sup>140</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer” (DMA thesis, the University of Iowa, 1977), 61.

<sup>141</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 18, 2012.

<sup>142</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 13, 2011.



apply it. There are three focal points of Dan Tian in the body.<sup>143</sup> The lowest and most powerful is located just below the navel. The simplest way to sense the lower Dan Tian is by becoming aware of breathing from the lower abdomen.<sup>144</sup> There is a scientific study about the Dan Tian stimulation and its effect to the brain, which was published in the *American Journal of Chinese Medicine* in 2006. The Following is an excerpt from the conclusions of this research:

Dan Tian is a very important region of the human body...The word Dan Tian has very profound meanings- ancient Chinese call medicines that can give people longevity “Dan”. To plant this “Dan” in a field and make it grow, this is the meaning of Dan Tian. Many kinds of practice often call for directing the mind on the Dan Tian. Some advocate directing the saliva to the lower Dan Tian (about one-third of an inch below the navel), also known as “precious liquid return to the Dan Tian.”

There are many reasons for directing the mind or moistening the Dan Tian: in Chinese medicine, the lower Dan Tian...is a place where the real Qi (Chi,energy) is deposited...

...From a physiological point of view, the Dan Tian is only one point on the surface of the skin; its sensational reaction is the same as any other point (e.g. hand, foot) on the skin. There is research evidence in brain science to show that stimulating the skin on the hands or feet will activate the motor

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<sup>143</sup> The Taoist concept of the three focal points of dan tians are upper, middle, and lower dan tian. The upper dan tian is located in the center of the brain, at the level between the eyes; the middle dan tian is centered in the chest area, at the level of our heart; the lower dan tian is located below the navel.  
<http://www.pacificcollege.edu/acupuncture-massage-news/om-essay-contest/om-essay-contest-2011/886-the-taoist-approach-of-the-three-dantians.html>

<sup>144</sup> Ron Catabia, “Gut Feelings: Daoist Lower Dan-tien Psychotherapy,” *The Empty Vessel* (Fall 2007): 1,  
<http://www.sundo.org/pub-pressroom.htm> (accessed Oct. 25, 2012).

cortex of the brain, but not other regions. If the Dan Tian is also just another point of the skin, stimulating the Dan Tian would be the same as stimulating other points on the skin, so will the reaction of the brain be.

On the contrary, if the Dan Tian isn't just another point of the skin, but "a central place where real Qi gets in and out, the source of the mind," then the reaction of the brain should be different. We hypothesized that the Dan Tian is closely associated with the frontal lobes of the brain, because the frontal lobes mediate many higher human cognitive functions, e.g., analytical ability, flexibility, planning, inhibition, and affective balance...

In 2006, we invited ten volunteers to undergo fMRI on the reaction of the brain to stimulation of the Dan Tian and the hand. The results confirmed the hypothesis in the frontal lobe, temporal lobe, thalamus, insula, and the cingulate gyrus. These results show that the Dan Tian isn't just another point on the surface of the skin; upon stimulating it, many important parts of the brain are activated.<sup>145</sup>

From the Alexander Technique point of view, the center of the body is located just below the navel exactly where the Dan Tian resides. The Dan Tian is, in some ways, like the eye of the hurricane which organizes an unfailing supply of power circulating in the body. The Dan Tian is the focal point of the energy, and also the source from which the energy is directed. The eye of the hurricane is a useful metaphor for the state of being that best organizes and directs energy within the human being. The eye of the hurricane is utterly calm, but there is a powerful circulation of energy around the eye. When the eye disappears, the hurricane loses its focus of power and dissipates. Musicians can learn to center and focus their energy when playing their

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<sup>145</sup> Chan, A. S. et al., "Bilateral frontal activation associated with cutaneous stimulation of Elixir Field: An fMRI study," *The American Journal of Chinese Medicine* 34 (2006): 207-216.

instruments. In order to do this most effectively, one must come to a state of *non-doing*<sup>146</sup> or *inhibition*.<sup>147</sup> This theory of a focal point of energy which can be directed for music making, was reported by the legendary cellist Pablo Casals, who was interviewed by Corredor. The following conversation was presented in *Conversations*,

Corredor: *Do I understand that the necessary impulse to produce these flexible movements must come from the center of the body?*

Casals answered: “only this impulse, coming from the center of the body instead of each extremity, will group the different movements in a unified whole, producing better results and less fatigue. This impulse, coming from what I call the center of the body, is rather like an image of what I feel at the time, not an easy thing to identify or to name.”<sup>148</sup>

### **Hand and Arm Structure and Movement**

There are vertical, horizontal, and rotational motions in bow movement and, therefore, in the coordinating of bow movement. To accommodate all different kinds of movement required by the bow arm, one must have a clear idea of the entire arm structure (Figure 23).

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<sup>146</sup> This Alexander term refers to “avoiding interference with reflex functioning.” (Michael J. Gelb, *Body Learning: an Introduction to the Alexander Technique*, 165.)

<sup>147</sup> See Chapter 3, the description of *inhibition*, p.39.

<sup>148</sup> Joseph Maria Corredor, *Conversations with Casals* (New York,: Dutton, 1956), 210.

The structural design of the arm allows for great mobility. The two bones, radius and ulna (Figure 23), of the lower arm permit pronation and supination and the many bones and joints of the fingers (four finger joints and three thumb joints) and wrist (seven carpal bones) give them the flexibility to achieve the many hand positions necessary for finger movement and bow technique (Figure 24).



Figure 23 Arm structure<sup>149</sup>

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<sup>149</sup> This picture is from [http://www.arthursclipart.org/medical/skeletal/page\\_01.htm](http://www.arthursclipart.org/medical/skeletal/page_01.htm)

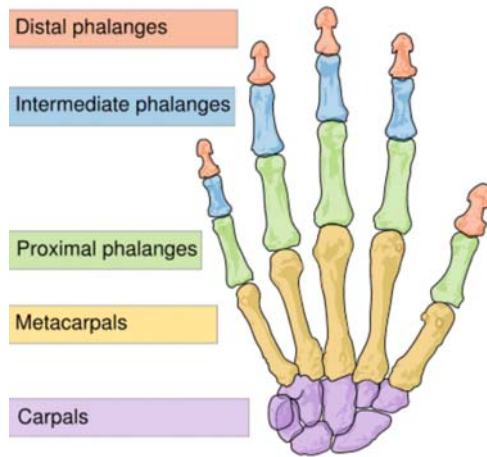


Figure 24 Hand structure<sup>150</sup>

It is important for the bassist to understand that the axis for rotation of the lower arm is on the little finger-ulna side, not the thumb-radius side. This simple clarification in mental orientation can solve certain bow technique. Also not widely understood is that the bony structure of the arm has four, rather than three joints- the wrist, the elbow, the upper arm joint, and the sternoclavicular joint (Figure 25) which is the only joint connecting the arm to the rest of the skeletal structure, allowing for wide ranging mobility.



Figure 25 Sternoclavicular joints<sup>151</sup>

<sup>150</sup> This picture is from [http://www.arthursclipart.org/medical/skeletal/page\\_02.htm](http://www.arthursclipart.org/medical/skeletal/page_02.htm)

The scapula houses the socket for the upper arm joint, and because it is only muscularly attached to the back, it is capable of considerable movement over the rib cage to accommodate a wide variety of gestures. Barbara Conable emphasizes the importance of good use of the sternoclavicular joint in relation to bow movement in string playing. She states,

Free, full use of the sternoclavicular joint is one of two secrets for getting to the tip of the bow comfortably and with good contact. The other is the full, free rotation of the upper arm at its joint with the shoulder blade.<sup>152</sup>

The shoulder blade plays an important role in combination with the collarbone engaging in free arm movement (Figure 26).

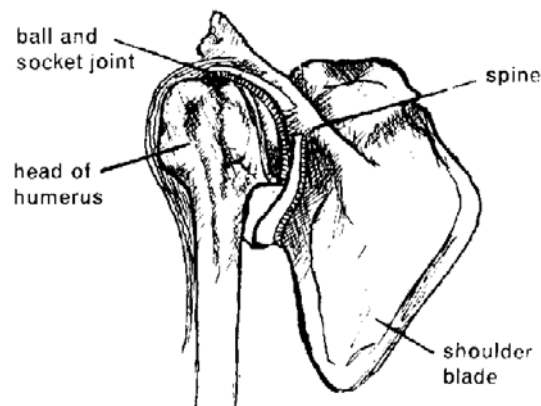


Figure 26 Shoulder blade<sup>153</sup>

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<sup>151</sup> This picture is from <http://www.shoulderdoc.co.uk/article.asp?section=911>

<sup>152</sup> Barbara Conable, *What Every Musician Needs to Know about the Body*, 53.

<sup>153</sup> This picture is from [http://www.arthursclipart.org/medical/skeletal/page\\_04.htm](http://www.arthursclipart.org/medical/skeletal/page_04.htm)

It can move up and down, forward and back, and it can move inward and extend outward.

Both shoulder blades (scapulae) only connect to the skeleton via muscles. They are not attached directly to the skull, spine or ribs. For this reason they are able to float on top of the rib cage freely in many directions, allowing for great freedom in arm movement.<sup>154</sup> It is also important to remember that the shoulder blade also forms the socket for the upper arms joint.

My Alexander teacher encouraged me to move and rotate my arms exploring their maximum range of movement in every direction. We also examined the length of the entire arms and how all four arm joints work together, by cooperating with each other with every gesture. Having a clear mapping of my arm structure in mind, and then having the kinesthetic experience of moving my arms with the full freedom of their original design, made me realize for the first time, how I could coordinate my bow movement with much more ease, space, and mobility.

The third joint of the arm structure, the elbow is located between the humerus and the lower arm which includes two bones, the radius and ulna. The elbow joint allows rotation of the lower arm, which movement is referred to as pronation and supination. While supinating, the radius (aligned with the thumb side of the hand) and ulna (aligned with the little finger side) are parallel with each other. Contrarily, when pronating, they cross. The ulna is as an axis for rotation of forearm. Comparing the bow weight with other bows in string family, the bass bow is much heavier than the others. In general, bass students who use the French bow, have

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<sup>154</sup> Barbara Conable, *What Every Musician Needs to Know about the Body*, 54-55.

intention to collapse their little finger to maintain the balance of the bow. I was always having trouble to balance my bow well. My little finger would collapse forcing me to maintain bow balance not with the tip of the little finger but with the metacarpophalangeal joint (Figure 27 and 28).



Figure 27 Improper way to hold the bow. Because the little finger is collapsed, there is no space between the bow hand and the bow. Inappropriately the metacarpophalangeal joint is directly in contact with the bow.

This caused problems for me especially while playing an even, long tone, because, whenever the bow traveled to its tip, the sound became weak. My Alexander teacher told me that my little finger is not as short as I thought. All fingers extend to the wrist, and it is there that their first joints reside. Thinking of the little finger extending to the wrist and also supported through the ulna and the humerus and eventually to the back, the little finger naturally stays firm and coordinates well with the rest of fingers.





Figure 28 Improper way to hold the bow. The little finger collapses because it is not supported by the whole arm. The hand, the wrist, and the lower arm are not aligned.

In addition, I discovered, I had tendency to twist my wrist while the bow was traveling toward to the tip (Figure 28). This habitual pattern interfered with the balance relationship of my little finger and the lower arm. Barbara Conable talks about the relationship of the musicians' hands and their lower arms. She says,

The rest relationship of the hand and forearm is the little finger lined up with the ulna...this makes the little finger pivotal and very secure and strong...This is the correct relationship of hand to arm for playing. Many

players stay very near to this relationship all the time they are playing. Others move their hands all over the place at the wrist as they play, but they always return here...It is the place from which movement in any direction is easiest. Imitate these players and you will never injure your wrist or elbow...If you feel your little finger is weak, you need this information very, very much.<sup>155</sup>

Through this thorough study of my arm and hand structure, I have discovered that the problem is not that I have the weak little finger. Instead, I had incorrectly mapped my fingers, my wrist, and my arms and how they relate to each other. I now realize that when I understand the true nature of my entire arm structure, it can begin to function as a whole (Figure 29).

In addition to the facts about arm and hand structure discussed above, there are two ideas that my Alexander Technique teacher taught me about arm movement, which helped me to release excessive muscular arm tension and free the arm's full potential for movement. They are that the arm comes out of the back and that the fingers initiate arm motion. Both of these ideas will be discussed further in the section of Achieving a Full Tone.

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<sup>155</sup> Barbara Conable, *What Every Musician Needs to Know about the Body*, 62-63.



Figure 29 Proper way to hold the bow. The fingers, the hand, the wrist, and the lower and upper arm are all aligned and supported by the back.

### **Back Support**

The latissimus dorsi muscle (Figure 30, in pink) is a large muscle located in the back. It begins at the tail bone and fans upward and outward, covering the lower part of the scapula and eventually attaching itself to the underside of the humerus or upper arm bone. The latissimus muscle supports the arms in activity. The trapezius muscle (Figure 30, in green), which has a close relationship with the movement of the neck, is primarily located around shoulder and upper back. These two muscles are among the major muscles of the back that are greatly involved in string playing. “They are muscles of expression. They can portray character or be

wonderfully expressive in dance. They are designed to stay free and long so that they can make long graceful bow strokes...but that is not their fate if neck muscles habituate tension. If neck muscles tense, so do these.”<sup>156</sup>

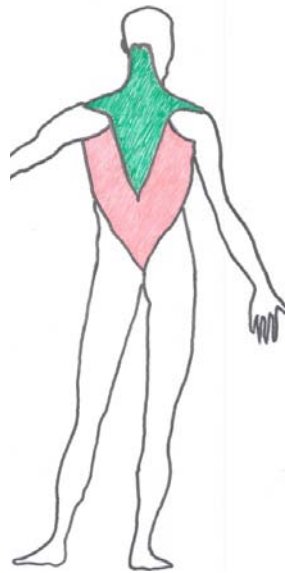


Figure 30 The latissimus dorsi muscle (pink) and the trapezius muscle (green)

### **Achieving a Full Tone**

First of all, stop trying to produce a full tone. I have observed quite petite musicians of various disciplines producing rich, full tones quite effortlessly. It is because they had not only mastered the technical demands of their instrument and but also had found a way to engage their entire beings in the act of music making.<sup>157</sup>

Patricia O’Neill

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<sup>156</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique*, 41.

<sup>157</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, March 23, 2013.

I have discovered that delicacy in the use of the self and clarity of thought are two major keys to achieving a full tone. When I am able to establish that state of mind and being, technical issues tend to fall away. Music making can be imagined as an ebb and flow of energy that emulates the ebb and flow of the musical phrase. It is like a dance that has no beginning and no end. This kind of playful thinking helps one to organize one's life force toward a single intent, with each aspect of the self effortlessly playing its part. I have discovered that metaphor and imagery can be powerful tools for marshaling the forces of the self in activity. They invite a playful attitude which, in turn, frees the mind and the body from the "should" that can often freeze and even block the energy. A full tone is never forced muscularly but is, instead, evoked and invited. As one invites a partner to dance and then is danced by that partner, so the musician invites the instrument to dance and then is danced by the instrument.<sup>158</sup>

In order to produce a full tone, the bow hand should not push down the bow; this motion will lock the wrist and prevent the tone from being fully projected. While playing, the musician's energy is directed from the center of the body through the finger tips. My Alexander teacher suggested that the fingers initiate the arm movement when drawing the bow across the strings. It is also important to remember the arms come from and are supported by the back. Allowing the fingers to lengthen leads the wrists, elbows, and arms into a cohesive motion that effortlessly evokes the full tone from the string. The concept of applying the large

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<sup>158</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, July 10, 2012.

muscles in playing was confirmed by Imre Waldbauer. Julia Quick described Waldbauer's approach about bow arm movement in relation to the large muscles, in the study of the *Violin Pedagogy of Imre Waldbauer*,

All large movements of the arms should originate in the big, active muscles of the back, shoulder and upper arm. The back is simply the controlling member of the highest order in the muscle hierarchy system which also includes those muscles connected with the shoulder blades...the larger the muscle you can use, the better off you are. You just can't count on the little muscles, because they'll let you down—they don't have the strength.<sup>159</sup>

In response to this comment by Waldbauer, my Alexander teacher had this to say.

Alexander Technique teachers would agree with Waldbauer that the back muscles support arm movement. But actually, arm movement in the human being is initiated by the fingers. This does not mean that the fingers take on the responsibility for moving the entire arm, only that the fingers initiate the movement. Consider a child that becomes curious about an object it sees for the first time. Its first response would be to lengthen its fingers toward that object, just as one would lengthen one's fingers to pick a juicy cherry off a tree. Allowing the fingers to initiate this action frees the arm muscles and allows them to organize in the best way to achieve one's intent, which is to eat the cherry. So it is with drawing a bow. The fingers initiate the motion of the bow arm to evoke the full tone from the string.<sup>160</sup>

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<sup>159</sup> Julia May Ehlers Quick, "Violin Pedagogy of Imre Waldbauer" (DMA thesis, the University of Iowa, 1977), 55.

<sup>160</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, February 11, 2013.

In *The Lost Sixth Sense*, Dr. Garlick explained that “the natural tendency of the upright human person is to fall forwards. Hence, the muscles at the back... so called “extensor” muscles need to be active to keep the person extended or upright.”<sup>161</sup> Therefore, applying the weight from those larger muscles in the back, which are meant to be extended and lead the smaller muscles (forearms, wrists, and fingers) in executing bow movements, would produce a freer, warmer, deeper tone. Nevertheless, the prerequisite is that the muscles ought not to be tensed more than needed and must be free when tension is not necessary.<sup>162</sup> Once again, I remind the reader that, though the power and support for arm movement originates in the muscles of the back, the fingers effortlessly initiate and lead the arm motion, just as the head effortlessly leads the spine.

In order to help bassists understand fully how the large muscles of the back support arm movement in bass playing, it can be helpful to encourage them to think of the arms coming out of the back and that the scapulae rest on top of the rib cage in their backs. If one thinks of the arm beginning with the upper arm joint rather including the scapula, it can be difficult to grasp the idea of the arm coming out of the back. In order to help me grasp this concept, my teacher asked me to think of my arms as great eagle wings, which clearly emerge from the eagle’s back. By throwing a ball one can experiment with the idea of the arm motion coming from the back.

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<sup>161</sup> David Garlick, *The Lost Sixth Sense*, 16.

<sup>162</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer”, 55-56.

For many people this will be an unfamiliar feeling, but with persistent reminders, one can change one's thinking about how the arm is actually supported by the back muscles. Until the mind fully grasps and embraces this new way of thinking about arms coming out of the back, full engagement of the back muscles will remain elusive.

When applying similar motions into bow movement, one should sense the weight of the bow as determined by gravity, with the bow arm resting on the string. Both the string and instrument support the weight of the bow. Alexander mentioned the principle of antagonistic action in relation to mechanical advantage, which could be applied to the process of producing a full tone in string playing:

In the process of creating a co-ordination, one psycho-physical factor provides a position of rigidity by means of which the moving parts are held to the mode in which their function is carried on.

This psycho-physical factor also constitutes a steady and firm condition which enable the Directive Agent of the sphere of consciousness to discriminate the action of kinesthetic and motion agents which it must maintain without any interference of discontinuity.

The whole condition which (it) thus obtains is herein termed "antagonistic action", and the attitude of rigidity essential as a factor in the process called the position of "mechanical advantage."<sup>163</sup>

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<sup>163</sup> F. M. Alexander, *Articles and Lectures*, 1<sup>st</sup> ed., 289.



For a string player, the “position of rigidity” discussed by F. M. Alexander above, is not to stiffen the body, grab the bow tightly, or immobilize the instrument. Instead, while a string player is in coordination with the instrument, the whole body needs to stay free, to be well-balanced with the instrument and to hold the bow firmly with flexibility in order to achieve “a steady and firm condition.”<sup>164</sup> When the body is functioning in balance, “without any interference of discontinuity,” I sense an unleashing of energy emanating from my Dan Tian through my body which focuses itself in the tone I am producing. The “interference of discontinuity” could be produced from any kind of physical tension or psychological block which stifles the sound.

The “antagonistic action” for a string player can be related to the angle of the instrument and its relationship to the bow; they work in opposition to each other. “There must be a corresponding increase in the resistance of the instrument to the increase of weight or pressure.”<sup>165</sup> If a player moves the bow in the same direction with the instrument, the “antagonistic action” would decrease which makes it impossible to create a full and rich tone.<sup>166</sup> Therefore, the essential action for achieving a full sound is to have a well-balanced relationship

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<sup>164</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland”, 52.

<sup>165</sup> Ibid.

<sup>166</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland”, 52.

with the instrument, accompanied by the core energy of the largest muscle group. All these should happen in a unified whole without extra effort to make the string vibrate.

The procedure for producing full sound on an open string is:

1. Using *awareness*, *inhibition*, and *direction*, find a state of liveliness and ease, by engaging your core support.
2. The bow hand shape is that of holding a tennis ball in the palm. The bow should be held firmly, without muscling, but not loosely. The thumb curves, contacting the end of the frog of the bow; the other fingers just rest on the bow naturally. Remember that the first joints of fingers are at the wrist.
3. It is essential to understand that the movement of drawing the string initiates from fingers and the weight originates from the whole back rather than from any individual unit, such as fingers, wrists, elbows, or forearms. Your fingers are gently but firmly holding the bow. I have discovered that excessive tension in holding the bow leads to a diminished fullness in the tone. Leading with your fingers, place the bow on the string.
4. Honor your present state of mind and be clear in your being. Then paying attention to the support of your back muscles, draw the bow on the string, fingers again initiating the movement, staying true to your intent. As you continue sensing the body's core support, allow the energy to emerge from your center.

5. Let the body discover how to play a rich and full tone. Imagine that you are evoking rather than producing the sound from the instrument. Think of the bow hand and the whole arm as a unified whole that invites the sound. Imagine that your arms are like wings opening out of the back. The upper arm joints are free and open. Using as little muscle as possible, allow the power of Dan Tian to inform the finger pressure needed to produce the sound. Overthinking or trying hard to play a rich tone may increase the intensity of muscle tension which impedes the flow of breathing and locks the unfailing supply of energy from the core of the body.
6. While playing allow yourself to be as fully present to the experience as possible. Sense and enjoy the vibration of the string. Each instrument has its natural vibration. Allow the instrument's and the body's vibrations to cooperate with each other, neither fighting for dominance.
7. Let go of striving for perfection when seeking to play a rich tone. Don't judge the result, but simply make corrections if there is an unpleasant sound happening.
8. Remember that focusing on the process rather than the goal, is more likely to produce the result you intend.

### **Vibrato**

Waldbauer believed that each violinist should develop his own personal taste with regard to vibrato (Garami). If the muscles were in balance.....vibrato

supposedly would develop by itself (Wienandt, Deri)...He himself used essentially an arm vibrato generated by the “work” muscles of the shoulder and back (Chadima)...In addition to the arm vibrato, he sometimes encouraged the use of the wrist (Garami; Rolland) and finger vibrato (Klaus). A free wrist, the use of both upper and lower arm, and relaxed fingers all combine to make vibrato a “natural happening” (Fleece; Wienandt)...vibrato should be thought of as a strong expressive device to be used according to the requirements of the music..., given the various color characteristics of contrasting styles of music (Dixon; Wienandt).<sup>167</sup>

Imre Waldbauer

Applying too much muscular energy to engage in the motion of vibrato is often seen among bassists and is one of the common factors causing bassists much trouble in playing vibrato freely on bass. To have free vibrato while playing, one should determine the proper weight to be applied through the fingers onto the string. There are always two points of balance in play with the fingerboard hand: one balance point is the thumb and the other balance point is one or more fingers, depending on where on the fingerboard one is playing. The contact of the fingers being used must be firm but not muscled. My Alexander teacher asked me first to simply experiment moving my hand slowly between these two balance points until I began to sense a repetitive pattern emerging. It seemed as though my hand was moving by itself. I was no longer controlling the movement consciously. My teacher explained that this kind of movement cannot be dictated by the conscious mind, which is not capable of dictating body movement that quickly. One must find a way of inviting the subconscious mind to take over.

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<sup>167</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer” (DMA thesis, the University of Iowa, 1977), 76-77.

Singers do the same thing when they roll an “r” or sing a trill. My main difficulty arose when determining how much finger pressure to use. Because I was determined to make the vibrato happen, I found myself exerting too much effort through my hand and fingers. In order to explore this problem, I developed an exercise which I will describe in detail.

I left the instrument and regarded my right forearm as a fingerboard in order to sense the amount of pressure I was applying with my hand and fingers. I began by placing my fingers on my arm as demonstrated in the example below (Figure 31).



Figure 31 The fingers are gently release onto the arm. They are not grabbing the arm.

Also I wanted to experience on my arm the same repetitive pattern or vibrato motion I was applying on the fingerboard. This experiment gave me more clarity about what proper weight facilitated the most effortless vibrato motion.

My process included the following check list:

1. Did the finger pressure on the fake fingerboard (my right forearm) feel too grabby? If so, which part of my left hand was tight? Left arm, wrist, thumb, fingers, or something else? Once I determined where I was applying too much pressure, I asked myself, “could I do less?” Through those processes, if the vibrato motion was not being performed freely on the right forearm, I continued to release more and more tension until the left hand had the flexibility needed for the repetitive motion of vibrating.
2. Then I applied the same amount of finger pressure on the real fingerboard of the bass. To begin with I found the most comfortable position on the fingerboard. For me this was the note G on the D string (the fourth position, according to F. Simandl method book). First, I played the note without vibrato, with the right hand plucking the string. At this time, I allowed the body to discover how to use less effort to make the string ring at its maximum potential. I used both my sensation of touch and hearing to become aware of the string’s vibration relating it to the amount of finger pressure I was using each time. By listening, I helped my body to do reasoned adjustments, according to the projection of vibration. If I was unsure of what I had heard, I watched the vibration of the string. The more the string vibrated, the more it rang.
3. Apply the same vibrato motion that one senses on the forearm while playing on the bass and determine if the sound could be projected deeply and ring fully. The volume for string projection with vibrato should be similar to the sound of plucking the note without vibrato

motion. If not, it is necessary to return to the former procedure to examine for overlooked points. Accomplishing this step, one can go further, to no.4.

4. Do vibrato on bass with the bow, and sense the condition of the body and determine if there is unnecessary muscle tension interfering with the fluent motion of the vibrato, such as excess extra tension from fingers, wrist, arms, legs, neck, or torso. If so, keep projecting the directions of *primary control* and *inhibit* the unnecessary tension, engaging in doing the motion of vibrato until one is free from unnecessary muscular tension.
5. Keep practicing *primary control*, maintain the new good use of the self, and experience the on-going new directions until the result convinces that one can trust oneself to apply these well-designed procedures for the intention of playing vibrato with ease and freedom in a performance situation.

### **Alexander Technique Procedure to Release Tension**

#### **Constructive Rest**

Shortly after the war (Albert Redden Alexander) suffered a severe back injury. He had been riding in Hyde Park one morning when he spotted his wife standing on the sidewalk with their young son. As A.R. sat there talking with them, he took his feet out of the stirrups for a moment just as an automobile roared by. The horse reared up and threw him on the ground, shattering the base of his spine. The doctors told him he could never walk

again, and for eighteen months he lay in a darkened room with nothing to do (he could not read) but practice inhibition and directive orders. In the end he was able to prove the doctors wrong by walking, first with two canes and then with one. When I knew him, he used the cane only to steady himself, never coming down on it heavily, and could walk, with a curious swaying motion, for a considerable distance, his trunk very upright and his legs swinging smoothly from the hips.<sup>168</sup>

Frank Pierce Jones

I have benefitted greatly by practicing this Alexander Technique procedure. My teacher introduced constructive rest to me early in our work together. It is a procedure widely practiced by students of the Alexander Technique. Constructive rest is also known as “active rest” and “semi-supine.” My teacher recommended that I do it at least twice a day—in the morning when I first get out of bed and evenings just before I go to bed. It is also calming and instructive to do constructive rest before practicing, before a lesson or performance, or before any activity one perceives as stressful. A period of constructive rest need only last 5-10 minutes to be effectual, but usually does not last longer than 20 minutes. During my first Alexander lessons, my teacher taught me to practice constructive rest while lying down on her table or floor, where she worked with me on a succession of arm and leg exercises which I could eventually do on my own. When lying down, the body has much more support from the floor, thus making it easier to minimize excessive tension throughout the body. Even so, while practicing this exercise, I encountered some of the same problems of habitual physical tension that I had encountered while

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<sup>168</sup> Frank Pierce Jones, *Body Awareness in Action: A study of the Alexander Technique*, with an Introduction by J. McVicker Hunt (New York: Schocken Books, 1976), 68.



practicing with my instrument. My teacher reminded me that this is the nature of habit, and I realized that the root cause of my double bass performance problems and the resulting physical pain stemmed from the same habitual tension I had been cultivating in daily movements. Since my initial introduction to constructive rest, I have been practicing it at least twice a day. It has been instrumental in helping me gradually become aware of and release body tension. The goal is to achieve a state of *non-doing*<sup>169</sup> which Alexander called *inhibition*.<sup>170</sup> Gradually, through practice, one will begin to tailor the directions one gives oneself to suit one's individual needs, similar to a mantra. Some of those directions might be:

1. My neck to be free so that my head may move forward and up, so that my back may lengthen and widen, so that my arms and legs may lengthen and free.
2. My shoulders are moving away from each other and my head is moving away from my shoulders.
3. All my joints are spacious.
4. My feet are fully contacting the floor and toes are lengthening like the roots of a tree.
5. My arms and hands are resting effortlessly on my rib cage (belly, the floor).
6. I am allowing my spine, arms and legs to find their full length.
7. I am allowing my torso to lengthen and widen and deepen.

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<sup>169</sup> See Chapter 5, the description of *non-doing*, the footnote 146, p.95.

<sup>170</sup> See Chapter 3, the description of *inhibition*, p.39.

The Procedure (Refer to the following pictures, Figure 32 to 37):

- (1) Lie on your back in a semi-supine position, knees raised toward the ceiling and soles of feet fully resting on the floor. Knees are a pelvis width away from each other.
- (2) Place enough books under the back of the head, so the head is moving slightly forward from the head/neck joint. It is of utmost importance that this head/neck relationship is maintained throughout the exercise, so it may be necessary at some point to change the height of the books on which one's head is resting.
- (3) The position of constructive rest is pictured below (Figure 32 and 33). First of all, use your kinesthetic sense to notice any extra efforting of your muscles to hold yourself in, out, up or down. When you detect tension gently invite those muscles to reorder themselves into a lively, delicate balance.
- (4) Once you sense you are in a state of ease, begin to give yourself directions as they seem necessary.
- (5) The following exercise may be done during constructive rest. I have found it to be particularly helpful to me as a bassist to incorporate two important Alexander ideas.

1. fingers leading arm movement and

2. the arms coming out of the back.

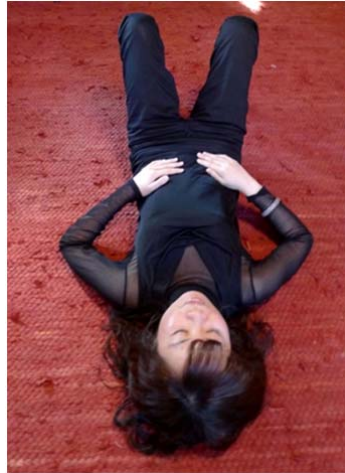


Figure 32 Constructive rest position (front)



Figure 33 Constructive rest position (side)

This exercise takes one through a series of hand and arm movements to retrain the mind to think of the fingers leading each arm movement, and using only the muscular effort necessary for each movement. Use the following succession of steps and sense the fingers leading each successive motion. Care should be taken to avoid any excessive tension in any of your joints, most commonly, of the hand, arm or neck.

The following procedure may be practiced while in constructive rest.

- (1) With the hands and arms on the belly or floor, lengthen the fingers only from their joints at the wrist and move the fingers around using as little effort as possible throughout the arm (Figure 34).



Figure 34 Constructive rest position. Lengthen the fingers from their 1<sup>st</sup> joints at the wrist.

- (2) With the hands and arms on the floor, lengthen the fingers and move the hands from wrist joint only, leading with the fingers, again using as little effort as possible throughout the arm.
- (3) With the hands and arms on the floor, use the lengthened the fingers to lead both forearms off the floor, with elbow resting on the floor and fingers pointing toward the ceiling. Then move both arms in a circular motion, leading with fingers, again, taking care to use as little effort as possible throughout the arm (Figure 35).



Figure 35 Constructive rest position. Use the lengthened fingers to lead both forearms off the floor.

- (4) Start with both arms on the floor and out to your sides (Figure 36). Lengthen the fingers to lead the arms off the floor with fingers leading and pointing toward the ceiling. Take care that you are not efforting in the upper arm joint. Many students find this difficult to do on the first few attempts. It can be helpful to remind oneself that the arms are coming out of the back and the head is leading forward and up. Once the arms are effortlessly up, move them in circular motions, leading with the fingers, and taking care to use as little effort as possible throughout the arm. Be sure that the shoulders maintain contact with the floor (Figure 37).



Figure 36 Constructive rest position. With the hands and arms on the floor in a supine position, gently lengthen the fingers in preparation for lifting both arms entirely.



Figure 37 Constructive rest position. Lengthen the fingers to lead the arms off the floor with fingers leading and pointing toward the ceiling.

### **Position of Mechanical Advantage (Monkey)**

Waldbauer always was walking like kind of an ape when he was demonstrating how to hold the bow...always so wanting his students to be almost like rag dolls, so that they play with their whole body (Simms).<sup>171</sup>

The “position of mechanical advantage” is one of F. M. Alexander’s most important tools in teaching his students the best use of joints in bending, sitting or standing. After describing the process, Alexander states “the position thus secured is one of a number which I employ and

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<sup>171</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer” (DMA thesis, the University of Iowa, 1977), 60.

which for want of a better name, I refer to as a position of ‘mechanical advantage.’”<sup>172</sup> In

*Man’s Supreme Inheritance*, Alexander describes,

The position of mechanical advantage, which may or may not be a normal position, is the position which gives the teacher the opportunity to bring about quickly with his own hands a coordinated condition in the subject. Such coordination gives to the pupil an experience of the proper use of a part or parts, in the imperfect use of which may be found the primary cause of the defects present. It is by the repetition of such experiences of the proper use of his organism that the pupil is enabled to reproduce the sensation and to employ the same guiding principles in everyday life. The placing of the pupil in what would ordinarily be considered an abnormal position (of mechanical advantage) affords the teacher an opportunity to establish the mental and physical guiding principles which enable the pupil after a short time to repeat the coordination with the same perfection in a normal position.<sup>173</sup>

Because of its appearance, his students called this little *étude*, “Monkey.” Marjory Barlow, a highly regarded figure in the Alexander world, who was one of the first-generation of the Alexander Technique teachers, was trained by her uncle, F. M. Alexander. She recalled her first lesson with Alexander, describing how he used the position of mechanical advantage, which she called Monkey, to get her into a chair: “Then he’d maybe get you up and put you into a

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<sup>172</sup> F. M. Alexander, *Man’s Supreme Inheritance* (London: Chatterson Ltd, 1946), 111 (footnote 15).

<sup>173</sup> F. M. Alexander, *Man’s Supreme Inheritance*, 111-112.

monkey, sometimes, when he'd got you into a good monkey, he'd just say, 'now go on letting your knees go', and ease you gently to the chair like that.”<sup>174</sup>

This position, which looks like a monkey standing, instructs the student to bend from the knees and then from the hip joints rather than the waist, and in so doing, “enhances the use of the legs and of the back, and gives stability and solidity to the whole body (Figure 38).”<sup>175</sup>

“This action is aimed at giving the experience of moving while maintaining the integrity of the back as a unit. When used in this way (lengthening rather than shortening), the back becomes a powerful lever.”<sup>176</sup>

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<sup>174</sup> Marjory Barlow, *An Examined Life: Marjory Barlow and the Alexander Technique in conversation with Trevor Allan Davies* (CA: Mornum Time Press), 27.

<sup>175</sup> Pedro de Alcantara, *Indirect procedures: a musician's guide to the Alexander Technique*, 108.

<sup>176</sup> Carol Porter McCulloch, “The Alexander Technique and the Pedagogy of Paul Rolland” (PhD diss., Arizona State University, 1996), 65.





Figure 38 Position of mechanical advantage. F. M. Alexander teaches his student to apply position of mechanical advantage.<sup>177</sup>

The monkey position can not only be integrated into daily life when washing one's face, playing basketball, badminton or any motions which require the bending of the knees, but is also very useful for bassists in playing their instruments both in standing and sitting positions.<sup>178</sup> Habitually, most bassists intend to collapse their back while coming forward to the instrument. Waldbauer applied the similar motion in his violin teaching as well for helping his pupils

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<sup>177</sup> This picture is from [http://alextech.wikia.com/wiki/Position\\_of\\_mechanical\\_advantage](http://alextech.wikia.com/wiki/Position_of_mechanical_advantage).

<sup>178</sup> Pedro de Alcantara, *Indirect procedures: a musician's guide to the Alexander Technique*, 100-108.

maintain balanced bodily posture while playing. His pupil, Fleece, recalled that “in order to attain freedom of movement or sway motions, his students were encouraged to flex their knees sometimes while playing. By example, he would note how much easier it is to keep one’s balance on a moving bus or while skiing when the knees are flexed rather than straight.”<sup>179</sup>

In the process of doing Monkey, stand upright, giving equal attention to the lengthening of the front and the back of your body. The feet are placed at shoulder width and are slightly turned out (Figure 39). Gently bend the knees taking care that the pelvis does not move forward, but remains in relationship with the torso. The legs maintain flexibility, with a sense of balance in relation to the upper body. Then, bring the body forward from the hip joints while the head continues to lead the spine into length (Figure 40).<sup>180</sup>

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<sup>179</sup> Julia May Ehlers Quick, “Violin Pedagogy of Imre Waldbauer”, 59.

<sup>180</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, July 17, 2012.



Figure 39 Standing

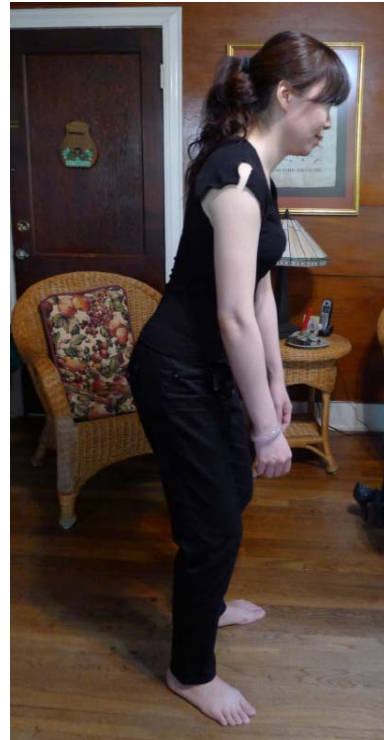


Figure 40 Monkey in standing

During the process, sense the spine's relationship to the pelvis and also sense the pelvis as a linking structure to the leg bones (femur, tibia, and fibula), which are aligned to assure the most ease standing. The heels are rooted into the ground. As one gives oneself to the force of gravity, the postural muscles awaken to support the body into an effortless "up." As the head moves forward and up, one can actually sense the spine lengthening and the back lengthening and widening, all of those things occurring simultaneously in a continuous state of flow.

I have found Monkey to be very useful in discovering my body's most easeful and efficient relationship to my bass, both in standing and sitting (Figure 41).



Figure 41 Applying Monkey in sitting to double bass playing

## CHAPTER 6

### THE APPLICATION

Over a period of years I have watched the progress of musicians who have learned to use this new approach to their problems, and have witnessed the increasing gain it has brought them in ease of performance, lessened fatigue, and the confidence that comes with a true self-knowledge.<sup>181</sup>

Frank Pierce Jones

Because of the highly demanding nature of difficult literature, it is common for bassists to overstress themselves both physically and mentally, resulting in overuse of the musculature. Special effects such as tone color, variety of expression, and technical, mental, and physical ability needed to play Brahms' *Cello Sonata in e minor* and *The Butterfly Lovers Violin Concerto*, are all indications that these pieces are undoubtedly part of the virtuosic literature.

This chapter offers specific passages from both works chosen because they presented particular challenges for me. The difficulties I encountered while attempting to conquer this material provided a rich basis for exploration and application of Alexander ideas. It discusses how my Alexander teacher helped me become aware of habitual thought patterns and posturing that were interfering with my ease of use in performance. My teacher would then help me to release mental interferences and refrain from harmful habitual patterns of tensing, while assisting me towards improved coordination, balance and flexibility in my body. Helping to document

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<sup>181</sup> Frank Pierce Jones, *Freedom to Change: the Development and Science of the Alexander Technique*, Introduction by J. McVicker Hunt. Foreward by Ted Dimon. 3<sup>rd</sup> ed. (London: Mouritz, 1997), 186.

my transformation as a result of my Alexander Technique experience, summaries of my two interviews are presented. Then, each excerpt will begin with a description of the specific difficulty I encountered, followed by detailed Alexander Technique procedures my teacher used to improve my bass playing. To complement her holistic teaching style, Professor O'Neill uses both imagery and metaphor, which aid the student in achieving the more deeply organized and directed intent, so vital in Alexander Technique work.

In offering so much detail, I hope to give the reader a comprehensive view of the entire process of practicing and ultimately refining one's playing to performance level by using the Alexander Technique.

### **Summaries of My Two Interviews**

#### **From Professor Patricia O'Neill**

Yun-Chieh came to me with a strong determination to improve her bass playing. I never doubted her sincere commitment to become an excellent bassist. She spoke of spending many hours daily to realize her dream, and was clearly frustrated that all her hard work was not helping her to improve. She also complained of much physical pain which was a result of her trying so hard to succeed. When she played for me I noticed several common patterns of habitual tensing that demonstrated that determination. Yet she was not very aware of how she was tensing her body, and despite her great effort, her tone lacked the core and vibrancy she desired to achieve. As we explored together it also became clear that her patterns of thinking were contributing a

great deal to her overall problem. In fact her determination was causing her to resort to these habitual patterns of tensing. These patterns included excessive tension in the muscles of the neck and upper torso and a tendency to hold her breath. Our work has been to heighten her awareness of her thinking and the resulting use of her body. Also, much of our work has been to help her understand how to recapture her body's own ease in movement through a study of body mapping (how the body is actually constructed), and how the body moves with the most efficiency, poise, and ease. And finally, we worked to change her thinking patterns to those more conducive to using her body with more ease. As we worked together over the next year and a half, she learned not to be so concerned for how she sounded but rather to focus on the process and experience of playing. As a result her tone improved dramatically. She began to experience playing with the beauty of tone that she had aspired to create. She had achieved a happy balance of coordination between her mind and her body.<sup>182</sup>

### **From Professor Yung-Chiao Wei**

I can't express enough how much Yun-Chieh has grown for many years of her studies at LSU, especially after she started to employ concepts of the Alexander Technique.

Yun-Chieh is a special case. She is a short female bass player, only 5 feet 2, similar to my size or even slightly shorter. Before she came to LSU for graduate studies, she had developed so much wrong technique and bad habits. Imagine a small size bass player like her

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<sup>182</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, February 11, 2013.

trying to play this big bass without proper instruction and knowledge. Although she is a good musician with high expectation of herself, I thought it was going to be a hard and long journey ahead of her.

I was not sure if it was even possible with her hardened arms, stiff body, too much worries and intensity in her mind to progress much.

As a matter of fact, her intense orchestra rehearsal schedules and recitals made it more difficult. However, her determination and dedication takes her to this final stage. After one year of learning the Alexander Technique and writing this document, she is able to play the bass with ease. Her sound is fuller with singing quality. She is finally able to enjoy expressing her thought and feeling on the bass.

She did not have a chance to win an orchestra audition seven years ago when she first came to LSU. In recent years, she advanced to the LSU Instrumental Concerto Competition finals and just won 1<sup>st</sup> prize on the Louisiana Bass Fest Young Artist Competition.

I have seen many bass players developed improper technique to “conquer” this large instrument, especially in Asia where people are genetically shorter. Her background can very well represent many bassists with similar physical disadvantages. This document would be



valuable to all bassists, especially beneficial to those bassists with similar physical disadvantages.<sup>183</sup>

### *The Butterfly Lovers Violin Concerto*

One day I brought to an Alexander lesson, the following passage (Figure 42) which had been causing me much difficulty.



Figure 42 Excerpt from Zhan-Hao He & Chen Gang, *The Butterfly Lovers Violin Concerto* (the opening *legato* love theme)<sup>184</sup>

I wanted to play it beautifully, but in my effort to do so, I found myself overly tensing my muscles in my all too familiar patterns of misuse. My teacher pointed out two approaches to my dilemma.

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<sup>183</sup> Yung-Chiao Wei, Associate professor of Double Bass, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, March 22, 2013.

<sup>184</sup> Zhan-Hao He and Chen Gang. “*The Butterfly Lovers Violin Concerto*,” Score, 1959, transcribed by Yung-Chiao Wei for double bass, Louisiana State University, LA.

The above passage contains several left hand shifts, in which accurate intonation can be challenging. My Alexander teacher reminded me of my habit of being too careful when making such shifts. In Alexander terms, she told me I was *end-gaining*.<sup>185</sup> My teacher's favorite definition of *end-gaining* is "misusing oneself with the hope of achieving a goal."<sup>186</sup> When approaching a task they consider difficult, human beings often misuse themselves by going into a "startle pattern."<sup>187</sup> She offered the following example, "when singers are approaching a note they consider difficult, they sometimes start to tighten themselves up on the note preceding it, as though they were getting ready for the high note."<sup>188</sup> They "batten down the hatches," she said, using one of her favorite metaphors.<sup>189</sup> Unfortunately, in so doing, tensing one's muscles when approaching a difficult passage compromises the possibility of good balance and coordination. My task was to find a way to free the muscles of my neck and reestablish a healthy head/neck relationship.

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<sup>185</sup> See Chapter 3, the description of *end-gaining*, p.42.

<sup>186</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, December 18, 2012.

<sup>187</sup> "The prototypical bio-mechanical response to fear, beginning with contraction of the neck muscles." Michael J. Gelb, *Body Learning: an Introduction to the Alexander Technique*, 165.

<sup>188</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, December 18, 2012.

<sup>189</sup> The term the sailor uses when the storm is coming, they tie everything down, so it doesn't blow away.

Two big shifts occur in this passage (Figure 42, m.2 C~F and m.4 A~F). The issue was that I considered both of these jumps problematic. I approached the top note as if I were climbing Mount Everest. Consequently the high note sounded like it did not belong to the phrase. I needed to change my attitude about these left hand shifts. Therefore, my Alexander teacher suggested that while I applied the Alexander principle of *inhibition*,<sup>190</sup> which is a state of *non-doing*,<sup>191</sup> I should think of this passage as a simple whole, rather a minefield, fraught with dangerous challenges. When approaching these shifts, I should maintain the same attitude I had when playing less challenging passages. In so doing, the difficult high note became a part of the whole phrase, instead of a Mount Everest. This exercise, taught me that a light hearted, even playful attitude was extremely helpful in releasing the excessive tension that had been plaguing me.

Secondly, my teacher suggested that I focus my attention on what it was I wanted to express, rather than trying to play beautifully, or, in Alexander terms, she wanted me to employ the principle of *direction*.<sup>192</sup> She asked me, “What does your heart want to say in this opening *legato* love theme (Figure 42)?” Often musicians lose their connection to their hearts when they become overly concerned about playing beautifully. When this occurs, the

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<sup>190</sup> See Chapter 3, the description of *inhibition*, p.39.

<sup>191</sup> See Chapter 5, the description of *non-doing*, the footnote 146, p.95.

<sup>192</sup> See Chapter 3, the description of *direction*, 41.

psycho-physical relationship is compromised. My teacher reminded me that a flower does not concern itself with being beautiful, it simply fulfills its destiny, blossoming in its own unique way. This is the metaphor that my Alexander teacher used to describe the broad shift from C to F (m. 2) occurring in the above passage. The following paragraphs from *Thinking Aloud*, by Walter Carrington, echo exactly the words of my Alexander teacher.<sup>193</sup> He said,

Rarely do people manage to stop and quiet themselves and get themselves into a situation of non-doing. Non-doing is, above all, an attitude of mind. It's a wish. It's a decision to leave everything alone and see what goes on, see what happens. Your breathing and your circulation and your postural mechanisms are all working and taking over. The organism is functioning in its automatic way, and you are doing nothing.

If you're going to succeed in doing nothing, you must exercise control over your thinking process. You must really wish to do nothing. If you're thinking anxious, worried thoughts, if you're thinking exciting thoughts that are irrelevant to the situation at hand, you stir up responses in your body that are not consistent with doing nothing. It's not a matter of just not moving-that can lead to fixing or freezing-it's a matter of really leaving yourself alone and letting everything just happen and take over.<sup>194</sup>

As I let go of my concerns about playing in tune and thought of the phrase as a simple whole, I found that that my mind-body connection was restored, and was able to experience a

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<sup>193</sup> See Chapter 2, the description about Walter Carrington, the author of *Thinking Aloud*, in the section of Other Works by Important Alexander Technique Figures, p. 20.

<sup>194</sup> Walter Carrington, *Thinking Aloud: Talks on Teaching the Alexander Technique*, ed. Jerry Sontag (CA: Mornum Time Press, 1994), 134-135.

state of *non-doing* and the effortless shifting movement of my hand. With my coordination and balance restored, I found myself playing the phrase with ease as though I were dancing the phrase with my whole being, not just with my hand. Through this experience, I was again reminded that human beings encounter difficulties when they view their mind and body as separate from each other.<sup>195</sup>

I encountered great difficulties in executing the following lively *rondo* passage (Figure 43) which requires advanced left-hand technique for articulating each sixteenth note clearly and quickly in the higher register of the G string (Figure 44 and 45).<sup>196</sup> For instance, I had a problem transferring the whole arm weight to the bow hand, so the full richness of tone was lost.

In addition, the more I wanted to play fast to achieve the tempo, the more my left hand tensed up, and the more timid the sound became. This, of course, was the opposite of what I intended. In the following paragraph I discuss how my teacher dissected my problems in great detail.

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<sup>195</sup> See Chapter 3, the description by F. M. Alexander in *The Use of the Self*. “I, in common with most people, conceived of ‘body’ and ‘mind’...” p.30.

<sup>196</sup> *Rondo*, “A composition based on the principle of multiple recurrence of a theme.” Don Michael Randel, *the Harvard Dictionary of Music*, 4<sup>th</sup> ed. (Cambridge: the Belknap Press of Harvard University Press, 2003), 741.



Figure 43 Excerpt from Zhan-Hao He & Chen Gang, *The Butterfly Lovers Violin Concerto* (the rondo passage)<sup>197</sup>



Figure 44 Playing in the high register on the G string (front)

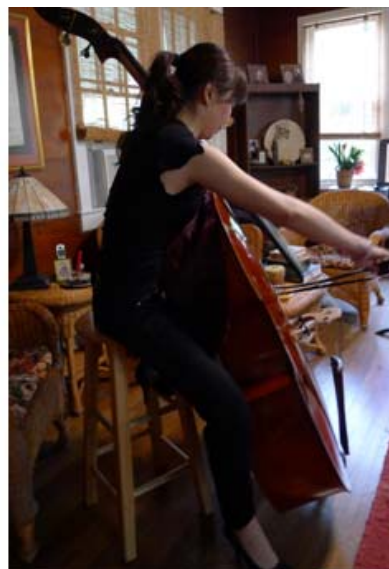


Figure 45 Playing in the high register on the G string (side)

While playing in the high register, I needed to remind myself once again to refrain from my usual habit of tensing the muscles of the neck and lifting my shoulders. In addition, I reminded myself of the support of my back, and my contact with the floor through my feet. Yet

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<sup>197</sup> Zhan-Hao He and Chen Gang. “The Butterfly Lovers Violin Concerto,” Score, 1959, transcribed by Yung-Chiao Wei for double bass, Louisiana State University, LA.

still my concern for playing this section at such a lively tempo, continued to thwart my efforts. At this point, my teacher invited me to do a little *étude*, which, she explained was not the Alexander Technique, per se, but could perhaps serve the purpose of lightening the mind of its unwarranted concern. A description of this activity follows.

My Alexander teacher asked me to put the bass aside and “sing along while dancing the music” with no concern for how I looked or sounded. During the process, I was asked only to sense fully the playfulness of this music; to connect deeply within myself with all the feeling and emotion in the music and allow that to be expressed in singing and dance. This exercise immediately connected my whole being with the music. All that was needed now was to maintain that same light-hearted attitude when playing the passage on my bass. When I returned to playing the passage on my bass I found that I was able to transfer the same playful attitude. Approaching the fast tempo with a lighter heart enabled me to see myself playing it with more ease, and the tone I produced was much deeper because the interference of unwanted muscular tension in the body was decreased.

This little exercise as well as the one preceding, convinced me of the pervasiveness of the psychological hindrances, which can interfere with the general coordination of one’s psycho-physical mechanism and sabotage a player’s ability in performance. It offered me a strategy for dealing with thoughts that sabotage my playing. I realized that I am not a victim of my thoughts; and further, that I have a choice about the attitude I bring to a performance. I was

relieved to know that I did not have to misuse myself in order to cope with the anxiety of playing this passage, a mindless activity Alexander called *end-gaining*.<sup>198</sup> Instead I could choose to change my mental attitude in response to the music I was playing, and improve my physical coordination and increase my technical competence automatically. As Walter Carrington observed, “it’s a matter of really leaving yourself alone and letting everything just happen and take over.”<sup>199</sup>

Technically, whenever playing the 3rd measure of this passage (Figure 46), I could not make it sound as clear and even as the sixteenth notes in the first measure (Figure 46).



Figure 46 Excerpt from Zhan-Hao He & Chen Gang, *The Butterfly Lovers Violin Concerto*<sup>200</sup>

The reason was that when I reached the high point, I habitually tightened my abdominal muscles, which made it difficult to breathe freely.<sup>201</sup> This habitual use became exaggerated,

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<sup>198</sup> See Chapter 3, the description of *end-gaining*, p.42.

<sup>199</sup> See Chapter 6, the quotation by Walter Carrington, he said: “If you’re going to succeed in doing nothing, you must exercise control over your thinking process...” p.136.

<sup>200</sup> Zhan-Hao He and Chen Gang. “*The Butterfly Lovers Violin Concerto*,” Score, 1959, transcribed by Yung-Chiao Wei for double bass, Louisiana State University, LA.



especially when I assumed a judgmental attitude, during practice sessions, hearing my playing as wrong and ugly. This experience reminded me, of the basic core of F. M. Alexander's teaching, that undesirable body functioning is always related to how I use myself as a whole.<sup>202</sup> Now I had discovered one of the habits, which was preventing my breathing mechanism from functioning naturally-my judgmental attitude toward my playing.

From my now restored and heightened kinesthetic sense as a result of the application of Alexander principles to my playing of this passage, I have been able to make some discoveries about bow usage and left hand technique, in relation to my body coordination. From a technical point of view, while executing the above passage (Figure 46), the thumb is to be used as a pivot point to prepare the action for the next note and transmit weight to the next finger. The weight of the fingers comes from the effect of gravity on the finger itself and also on the whole arm which originates from the back.<sup>203</sup> From the aspect of proportion of bow usage, the best place for bassists to produce clear 16<sup>th</sup> notes with staccato is the balanced point of the bow.<sup>204</sup> For

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<sup>201</sup> See Chapter 5, the description by F. M. Alexander, he considered the relationship between breathing and performance: "Thoracic rigidity and breathlessness- the one making the correct performance of the exercises impossible..." p.79.

<sup>202</sup> This refers to Chapter 3, the quotation by F.M. Alexander, he said: "I considered that I had by my study and observation found that the source of my troubles lay in what I was doing myself in activity..." p.28.

<sup>203</sup> See Chapter 5, the procedure no.3, in the section of producing full sound on an open string, p.110.

<sup>204</sup> "The balance point is the place on the stick of the bow where the bow balances perfectly."  
(<http://www.stringtechnique.com/pedagogy/bowstroke7.html>)

upper string players, the balanced point of the bow is at the middle third of the bow. In *The Teaching of Action in String Playing*, Rolland addressed proportion of bow usage in relation to playing short strokes. He said,

The middle third of the bow is the easiest to control. At the middle, the arm is in its most comfortable position, because the elbow joint is in a mid-position with upper arm and forearm...With the arm in this position, the bow can more easily be drawn correctly at a right angle to the strings.

Also, it is easy to control the bow pressure at the middle, because the hand supports about half of the weight of the bow, the string the other half. This is not true at the frog, where the bow weighs heavily on the string, or at the tip, where the weight of the bow is slight.<sup>205</sup>

In executing this particular short stroke bow movement, one can regard the fingers, wrist, and forearm as a unit extending from the elbow. The forearm swings as fast as possible, similarly as the action of playing a *tremolo*.<sup>206</sup> To execute this motion with ease, the wrist and fingers from the bow hand should be firm, but not stiff. If one's wrist and fingers are too loose while holding the bow, the tone will not sound focused and clear. On the other hand, if one

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<sup>205</sup> Paul Rolland and Marla Mutschler, "The Teaching of Action in String Playing: Developmental and Remedial Techniques; Violin and Viola", 90.

<sup>206</sup> *Tremolo*, "Usually, the quick and continuous reiteration of a single pitch. On stringed instruments, it is produced by a rapid up-and-down movement of the bow." (Don Michael Randel, *The Harvard Dictionary of Music*, 905)

grabs the bow too tightly, the flexibility of the bow hand would be diminished, making it impossible to achieve a fast tempo with the greatest efficiency.

Optimal left hand finger positioning on each note is also an important contributing factor. Each note must be articulated as clearly as possible without engaging in undue tension. To assure that the sixteenth notes of the third measure speak as clearly and evenly as the sixteenth notes in the first measure (Figure 46), the left hand must articulate more on those notes, compared with the notes in the first measure.

In the first half of the third measure of Figure 46, the left hand should highlight the ascending passage D E F#A by applying proportionally additional arm weight with each ascending note, as if there were a crescendo. In addition, the bow must be closer to the bridge and maintain in the same contact point. To assure a clear, even tone in this passage, these factors must be employed simultaneously.

Still remaining was the dilemma of how to achieve such a lively tempo in a high register on the G string. From an Alexander Technique perspective, issues of body usage while playing in this position have been addressed previously (see p.139). My one remaining task was to deconstruct my belief about what it takes to play fast. When approaching a fast passage, my mind would frantically demand that I play faster and the pulse of the music would be lost, the resulting tones would lack clarity.

My Alexander teacher pointed out that the way one plays slowly is the same way one plays fast. Time is relative and therefore expandable in one's mind. While playing at a fast tempo one can imagine having plenty of time still to savor the playing of each note. In order to give oneself an experience of this, playing slowly first is important. It quietens the mind giving it more time to experience fully the activity of playing each note, so when the speed increases, the memory of fully experiencing playing each note is retained. Allowing the mind to change one's experience of time is challenging, requiring a bit of a leap of faith. My experience was that if I trusted myself, I could experience the playing of the passage unhurriedly in my mind, even though the tempo was seemingly fast. From this experience, I learned I must not limit my own possibilities.<sup>207</sup> Once the body has tasted the experience of playing slowly it can duplicate the experience effortlessly in a faster tempo. It remains only for my mind to trust the body's innate ability to do so.

In addition to the above, my Alexander teacher introduced me to another important idea espoused in the Alexander community, called *unified field of attention*.<sup>208</sup> Here Alexander students are encouraged to include in their attention, both their internal state of mind and awareness of self, as well as their external environment, whenever engaging in activity. My

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<sup>207</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, August 21, 2012.

<sup>208</sup> See Chapter 3, the description of *unified field of attention*, p. 45.

Alexander teacher shared an experience from her vocal teaching as an example. She pointed out that sometimes, when singers become overly concerned about an approaching high note, they become too inwardly focused and lose awareness of their bodies and their environment. In the Alexander community this is sometimes called the “startle reflex.”<sup>209</sup> This narrowing of focus usually results in a narrowing of their physical bodies as well as a dulling of their senses. They are simply not as fully present to themselves or the activity of singing the high note. They have gone away. One can see it in their eyes. Their eyes become blank as though they were seeing nothing. They are not really fully participating in the experience of singing high. When they are encouraged to include in their awareness their environment, they begin to experience more of a sense of themselves at the same time. As a result they also begin to experience more space within themselves and sense themselves more fully in the present moment. Eliminating any aspect of a present moment experience presents the possibility of losing optimal bodily balance and coordination. My Alexander teacher had reminded me of *unified field of attention* (it is the same as unified field of awareness), a common concept for teaching Alexander Technique. Jones wrote an article entitled *The Organization of Awareness*, talking about awareness and attention in relation to the state of human body with their environment. First, he explained the meaning of awareness and its relation to human habits in the following.

Awareness is knowledge of what is going on while it is happening- of what you are doing while you are doing it. It is a generalized alertness to present

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<sup>209</sup> See Chapter 6, the description of “startle pattern” the footnote 187, p.134.

events. It must be admitted, however, that awareness of what you are doing is not everybody's primary goal. Many people on the contrary prefer to be *unaware* of what they are doing. They aim at a kind of learning that will give them automatically the right response for any situation. The advantage of learning something so well that you can do it automatically is, they say, that you can think of something else while you are doing it- something that is more interesting or more important...

In my view the chief disadvantage of automatic performance is that without awareness it cannot be changed. Socrates when asked whether it was better to do wrong knowingly or unknowingly shocked his listeners by replying that it was better to do it knowingly. If you know that it is wrong, he explained, you can change. Otherwise you cannot.

Even if a habit is good, it loses something if it becomes unconscious and stereotype. People grow older, circumstances change, fashions change and a manner of responding or a style of performance may cease to be appropriate...<sup>210</sup>

Jones continued to describe the Alexander Technique is

a method for organizing awareness in such a way that a performance can be well-learned without becoming stereotyped and mindless, and hence incapable of change. The key is to be found in the relation between awareness and another conscious state, attention. Awareness, as I conceive it, is a general unfocused condition in which a person is wide awake and alert to whatever may be going on without being concentrated on anything in particular. Attention, on the other hand, is focused on some particular aspect of the field. It has been compared to a spotlight on a dark stage...The ability to give attention- to concentrate- is much sought after and is often valued in

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<sup>210</sup> Frank Pierce Jones, *Freedom to Change: the Development and Science of The Alexander Technique*, 3<sup>rd</sup> ed. (London: Mouritz, 1997), 174-176.

proportion to its intensity and the degree to which everything else is shut out...<sup>211</sup>

Jones gave an example to demonstrate

the common notion of concentration as a narrowing of the field of attention...also illustrated the danger in concentration- the danger that something important is happening *outside* the field of attention without ever being observed. The spotlight may be too bright and the rest of the field too dark to make the observation.<sup>212</sup>

Jones suggests that as an alternative

Attention instead of being narrowed is expanded to take in certain key relations in the body as well as the activity on which attention is focused. To use the figure of the spotlight and stage again, this time the spot is still bright but the stage is merely dim instead of blacked out.<sup>213</sup>

As I applied it to my problem with playing this fast passage, I experienced a shift in perception and attitude. When I practice *unified field of attention*, I experience myself as complete, all aspects of myself cooperating as a whole with each other and my environment, and

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<sup>211</sup> Frank Pierce Jones, *Freedom to Change*, 176.

<sup>212</sup> Ibid.

<sup>213</sup> Frank Pierce Jones, *Freedom to Change*, 176.

thus becoming a conduit for the music I am playing. Playing high becomes a non-issue, because the music has become a part of the whole experience. It is as though I am not playing the music. It is playing me.

### ***Brahms' Cello Sonata in e minor***

When Michaelangelo was asked how he made his statue of David he is reported to have said, "It is easy. You just chip away the stone that doesn't look like David."<sup>214</sup>

Michaelangelo

### **The First Movement of the Sonata**

The first movement features a sorrowful and bitter atmosphere, which requires a dark full tone. I discovered that such richness of tone cannot be manufactured, but must be called on from a deep place within my being. Like Michaelangelo said above, I realized that, in order to access that kind of depth, I had to remove the obstacles that prevented such a deep exploration of myself.

In working on this Brahms movement with my teacher, I encountered the difficulty of coordinating various Alexander strategies simultaneously. When I became aware of excessive tension, my first instinct was to make myself relax, thus losing vital muscle liveliness and coordination. When I needed to enhance my awareness of myself in playing, I found myself

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<sup>214</sup> Michaelangelo, "HPMD Quotes & Sources: setting the figure free," HP Management Decisions, Ltd, <http://www.hpmd.com/hpmd/wquotes.nsf/85256253006987038525612b00479a1b/552751fd5a9c07b9802576450075fa5b!OpenDocument> (accessed Dec 16, 2012)



forcing that awareness. The following is a description of the process I experienced with my teacher.

First, I discovered that I had a tendency to lose the support of my back, especially playing in the high register. In my fervor to find depth of tone, I had leaned forward towards my instrument, interfering with the all-important head/neck relationship; which, of course, compromised my *primary control*.<sup>215</sup> My teacher also reminded me that when I play in the high register, and the elbows naturally move forward with the body, the elbows must still be thought of as part of the back. My teacher applied her hands to invite my shoulders to widen and her touch reminded the muscles around my upper back to release excessive tension. At this moment, my attention was drawn so much to releasing my upper back and shoulders that I lost the sense of my feet being connected to the ground. As I sought to remind myself of that connection, I found myself overdoing, I was trying too hard to make it happen. I was confused about coordinating my sense of back support, the release of excessive muscular tension in my shoulders and the contact of my feet to the ground simultaneously. My Alexander teacher said, “if you try physically to push your feet into the floor, you are doing too much. Your job is simply to be aware that your feet are touching the floor. You don’t have to do any more than that. There is no will power involved. Will power invariably invites excessive muscular effort. It is the same as when you tried to will your shoulders to release excessive tension.

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<sup>215</sup> See Chapter 3, the description of *primary control*, p.31.

You had done too much as well. Instead, you practiced *non-doing* and trusted the innate intelligence of your shoulders to find the best way of opening themselves up. This innate intelligence is also evident in the blossoming of a flower, which unfolds as nature intended it.”<sup>216</sup>

If our minds try consciously to control every aspect of our body use, the body’s natural ability to balance and coordinate activity is compromised. Our job is to invite enhanced awareness of our state of being, delicately decide what is needed to achieve our intent, and simply allow our body to do it. In so doing we practice the three principles of the Alexander Technique, *awareness*, *inhibition*, and *direction*, thus achieving a delicate balance of mind-body co-ordination.

Barbara Conable offers an example of how this mind-body coordination is achieved by practicing *awareness*, *inhibition*, and *direction*, in her book, *How to learn the Alexander Technique*. She states that “the bent spine should distribute movement equally among the joints.” She describes,

Suppose you are reading a book at a desk and you have your head and neck bent forward so that most of the bending is concentrated just at the place where the cervical curve gives way to the thoracic. Your trapezius muscles will burn, you will be very stiff when you finish reading, your neck will be tighter, and you will have reduced mobility at your joint of your head with your spine. If, on the other hand, you distribute the movement evenly across

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<sup>216</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, August 28, 2012.

the vertebrae you get an easy curving of the whole torso over the desk and you feel fine.<sup>217</sup>

The bassist faces the problem of having to bend the spine forward while playing in the high register. In this process, if we think about lengthening the spine, more than about widening the back, we can get too tensed in the front and not tensed enough in the back. What we need is a proportional amount of tension and relaxation so that no single part of the spine is working harder than another. To achieve optimal balance in the body, the entire spine must to be involved in all activity. If we collapse, we are not really giving the spine much of a chance to become fully engaged. The question is how to achieve an equal balance of tension throughout the spine.

The Alexander Technique is focused on achieving the appropriate balance of muscular tension through the coordination of all aspects of the self, and particularly the mind-body relationship. The body and mind are inextricably linked and the appropriate balance of the two, results in the appropriate balance of the mechanical structure of the body. This balance is a result and not an end in itself. Consider how the child learns to speak. It learns through observation and experimentation, and simply trusts its body's innate intelligence to speak for it. When the child wants to say a "t," it has no need of knowing that the tip of the tongue must touch the alveolar ridge. It has no names for muscles or any idea of how they work. It is simply

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<sup>217</sup> Barbara Conable and William Conable, *How to Learn the Alexander Technique*, 15.

using its kinesthetic sense by having an intent and trusting its body's ability to fulfill that intent. Alexander students are interested in achieving this enviable childlike state, which they sometimes refer to as "a second innocence." As the child grows, its educational environment draws it further and further away from this natural mind-body coordination. Through the educational system to which it is subjected, the child's mind is taught to dominate the body, instead of cooperating with it. The child is taught to be goal oriented, to achieve a result no matter the consequence to the entire being. The child tends to overuse or overly tense muscular structures to achieve its goals. It is not taught to experience the process whereby it may achieve these goals. This kind of thinking draws the child further and further away from an awareness of its body in activity, an approach to living which inevitably continues into adulthood. However, this state of second innocence still lies dormant and unused within the adult. F. M. Alexander himself that speaks of the phenomenon of the loss of second innocence in *Man's Supreme Inheritance*, he states,

The real *cause* of the difficulties to be faced in the education of the child of today, is that the process of civilized life has gradually changed the child's psycho-physical condition at birth. In this process much has been gained and much lost. From the educator's point of view the losses have been stupendous as compared with the gains, for the all-important kinesthetic system have been deteriorated by man's attempt to pass from the lower (animal) to the higher stages of the evolutionary plane while depending upon a subconsciously controlled organism.<sup>218</sup>

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<sup>218</sup> F. M. Alexander, *Man's Supreme Inheritance*, 93.

The process that I underwent with my Alexander teacher helped me to reawaken my second innocence, to rekindle my trust in my body's innate intelligence and to use my mind not to dominate my body, but to cooperate with it, respecting its ability to find balance and coordination when I give it clear and unforced direction. Armed with the understanding of how to unveil my second innocence, I was ready to approach my problem of achieving the depth of tone needed in the first movement of this Brahms sonata. I had the tools necessary to allow my spine to distribute the effort of bending forward, equally throughout my entire spine. I did not need to tell the body how. I only needed to understand the importance of maintaining my head neck relationship while practicing *awareness*, *inhibition* and *direction* in order to gain the subconscious control of the body, the second innocence that the child enjoys.

Reviving my second innocence as described above helped me considerably to find the depth of tone necessary in the following passage (Figure 47). However, when approaching m. 5 to m.7, which requires a fine bow technique such as string crossing, I began to doubt myself.



Figure 47 Excerpt from Brahms, *Cello Sonata in e minor*, the first movement (m.1 to m.8)<sup>219</sup>

String crossing involves complex body co-ordination as one moves from one string to another. As I approached this passage with waning confidence, the resulting response in my

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<sup>219</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 1.

body was to tighten my abdominal muscles and hold my breath. I discovered that a part of my “startle pattern”<sup>220</sup> was the tendency to hold my breath. My teacher encouraged me to pay more attention to the process of playing this difficult passage rather than reacting to my fear of playing it. She also encouraged me to remind myself that this startle pattern was a very old reaction that was no longer a true reflection of my abilities. I needed to remind myself that I was now fully capable of playing this passage, and I allow myself to breathe naturally and approach playing it boldly with my full awareness engaged. “Boldly,” my teacher reminded me, “does not imply a forcing of your will, but a quiet knowing that the passage is well within your grasp.”<sup>221</sup> As I opened my awareness, I began to notice that my body was actually vibrating with the bass. It was as though the bass and I were one, and doing a very subtle, joyful dance together. By changing my mind about my ability to play this passage and directing my thinking more toward the actual experience of playing it, I began to experience more space within myself. And as I experienced myself as more spacious, I also believed myself more capable. I had discovered for myself how seamlessly the mind and body can work together to achieve effortlessness in playing this passage. Bruce Lee, one of the most persuasive martial arts

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<sup>220</sup> See Chapter 6, the description of “startle pattern”, the footnote 187, p.134.

<sup>221</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 4, 2012.

experts in 20<sup>th</sup> century, offered his thoughts about the philosophy of combat which echo the idea of my Alexander teacher here, he states,

The great mistake is to anticipate the outcome of the engagement; you ought not to be thinking of whether it ends in victory or in defeat. Let nature take its course, and your tools will strike at the right moment.<sup>222</sup>

Through the practice of *non-doing*, what Alexander called *inhibition*, my mind was able to find its way to zero, a state in which I was not engaged in the outcome of my playing. F. M. Alexander encouraged the liberation of the psychophysical whole from restriction.<sup>223</sup> He said, “Directly you don’t care if you’re right or not, the impending obstacle is gone.”<sup>224</sup> Interestingly, when I became fully involved and curious about the process and less concerned about how this passage sounded, I played it more beautifully and with greater ease.

From the perspective of bow hand technique, producing the warm depth of tone desired requires one to draw the bow beginning at the sweet spot (balance point) of the bow.<sup>225</sup> From the sweet spot, one must apply the full surface of hair at a slow bow speed with continuous

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<sup>222</sup> Bruce Lee, *The Tao of Jeet Kune Do* (Burbank, Calif.: Ohara Publications, Inc., 1975), 8.

<sup>223</sup> Alcantara, Pedro de, *Indirect procedures: a musician's guide to the Alexander Technique*, 74.

<sup>224</sup> F. M. Alexander, *The Resurrection of the Body: The Essential Writing of F. Matthias Alexander*, selected and with an introduction by Edward Maisel (New York: Dell Publishing Company, 1974), 9.

<sup>225</sup> See Chapter 6, the description about the sweet spot of the bow, the footnote 204, p.142.

vibrato. Henry Portnoi states that the more hair that is in contact with the string, the more full-bodied the sound will be.<sup>226</sup> Playing from the sweet spot of the bow is the easiest way to control the bow pressure to avoid an unnecessary accent or a weak sound on the starting note. As Paul Rolland observed, the bow weighs heavily at the frog and is too slight at the tip on the string.<sup>227</sup>

From the point of view of the left hand technique, the type of finger contact on the string is essential. For a warm tone the more of the flat side of the finger that is in contact with the string, the better. However, in so doing one must take care not to distort the shape of the hand. Finger pressure is also an important element in producing a warm, vibrant tone. In a dissertation entitled, *Violin Pedagogy of Imre Waldbauer*, Quick presents Waldbauer's philosophy of finger pressure in string teaching.

Waldbauer believed that fingers should be lightly pressed down and released like a spring. He believed in using as little pressure as possible...He asked his students to think of letting in a little air between the string and fingerboard to avoid a tightly pressed sound. Too much pressure makes the left hand tense, and the aim is always to keep as relaxed as possible. One is to use as much pad of the flat side of the finger as possible to help produce a warm tone. On the other hand, the amount of finger pressure used depends on the tension and speed of the music.<sup>228</sup>

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<sup>226</sup> Henry Portnoi, *Creative Bass Technique* (PA: American String Teachers Association, 1978), 4.

<sup>227</sup> Paul Rolland and Marla Mutschler, "The Teaching of Action in String Playing: Developmental and Remedial Techniques; Violin and Viola", 90.

<sup>228</sup> Julia May Ehlers Quick, "Violin Pedagogy of Imre Waldbauer", 69.



The string should ring out freely with a warm, vibrant tone, if one applies the bow technique and left hand technique described above.

The following passage presents two main difficulties. First, the ascending passage in m.5 must be played smoothly and with evenness of tone. When playing these ascending notes C# E A (the first half of m.5 in Figure 48), it is important to save the bow on the first note, and gradually increase the bow speed on each note. If one uses too much bow speed at the beginning, the bow will run out too quickly, making the crescendo at the end of this ascending passage difficult to achieve. In addition, without this strong climax, the entire melody will not sound fluent and connected. On the ascending notes reaching to the octave C# to E (the second half of m.5 in Figure 48), one needs to apply more vibrato, and a little more arm weight from both left hand and bow hand compared to the previous notes. This will ensure the necessary increase in intensity prior to m.6.



Figure 48 Excerpt from Brahms, *Cello Sonata in e minor*, the first movement (focusing on m.5 to m.7)<sup>229</sup>

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<sup>229</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 1.

The second difficulty one encounters in this passage is maintaining the seamlessness of the phrasing on the octave jumps, which require the complex technique of string crossing. In order to make the string crossings sound connected and smooth from m. 5 to m. 7, both hands have their part to play. One must sustain the intensity of sound with a continuously broad left hand vibrato, and sustain the bow until the very end of the bow stroke with right hand.

Through my Alexander Technique work, I finally understood and was able to coordinate my body to draw the bow across the strings freely with imagining a natural circular motion on the string. As I began to entertain the idea of a more circular motion, with no beginning or end, I began to experience a sensation similar to that of riding a wave. Not only is there a horizontal linear motion of the bow, but also a combination of vertical downward (Figure 49) and upward (Figure 50) motions of the bow. For instance, to sustain a long note evenly in this passage, the bow should be parallel and close to the bridge all the times. While the bow moves towards its tip in the motion of down-bow, the elbow will naturally rise slightly, making sure to maintain the arm's support from the back, as one gives body weight into the bow. At the same time, gradually one must increase the bow speed more and more to sustain the volume of the sound, because the bow is lighter at the tip. When the bow moves to the frog in up-bow motion, the elbow gradually drops as one releases the body weight to the bow. When giving one's body weight to gravity, one must be sure to bend at the hip joints rather than collapsing the torso. Just before the bow changes direction between the octave notes (m.6-7 in Figure 48), one should

speed up the motion of vibrato without muscular tension in order to maintain the musical intensity. When this all happens naturally, the string will ring out freely and cover the gaps between bow changings. To avoid extraneous string noise between bow changings one may vibrate both notes as though playing a double stop. Here the following note should be vibrated before the bow change. It is necessary then, that the fingers are always prepared on the following note and maintain vibrating with ease. The phrase will sound connected and smooth.

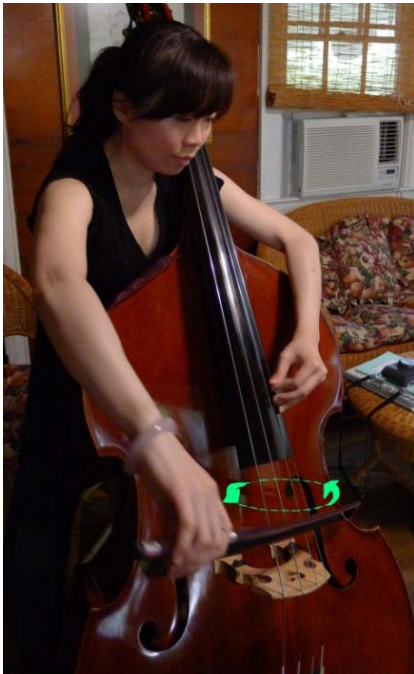


Figure 49 Down- bow circle



Figure 50 Up-bow circle

Tone Color-A Technical Perspective. Besides one's musicianship and artistry, from the technical perspective, the essence of making great diversity of tone colors is related to how the body coordinates with the bow hand and left hand. From the aspect of bow hand philosophy, the application of bow pressure, the usage of bow proportion (upper, middle, and lower part of

the bow), the amount of bow hair (less, half, and full of the bow hair) and bow speed, and the location of the bow in contact with the string (placing the bow close to the fingerboard or the bridge, or between the fingerboard and the bridge), are all the interrelated ingredients for presenting multiplicity of tone.<sup>230</sup>

In addition, it is also important for bassists to understand, “the application of bow pressure” has to come from the use of the weight from the whole bow arm. The entire body in combination with the bow weight, coordinating with the fine control of the movement from bow hand fingers, wrist, or elbow in contact with the string, would also have tremendous impact to the diversity of tone color.

From the standpoint of left hand technique, the use of the amount of finger pad and finger pressure, and the application of different fingering choices in contact on the string, are also the factors for changing the color of tone. In general, if there is a long held note, it is best to use the 2<sup>nd</sup> finger if applicable. Because, the 2<sup>nd</sup> finger is the strongest and the 1<sup>st</sup> finger can join the 2<sup>nd</sup> finger to vibrate the string as a unit. Of the four fingers, the 4<sup>th</sup> finger is the weakest. Regarding the use of finger pad for tone color, I, once again, include this quote from Waldbauer: “Use as much pad of the flat side of the finger as possible to help produce a warm tone.” Most of time, especially for playing the singing phrase in the higher register of this Brahms sonata, I discovered that the tone would be much rounder and thicker, if I applied the 1<sup>st</sup> and 2<sup>nd</sup> fingers in

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<sup>230</sup> Henry Portnoi, *Creative Bass Technique*, 3-4.

support of the 3<sup>rd</sup> finger when vibrating the string. Of course, the optimal experience of support for the fingers is provided when they are in coordination with the whole arm. This practice is helpful for bassists who have small hands.

Tone Color-A Broader Perspective.

The more you inhibit, the more spontaneous you become.

Bruce Fertmann <sup>231</sup>

The technical explanation provided above has served me well, but playing with just technical skill was not satisfying for me personally. I was wondering if my body could express with my bass what my heart and soul were saying. Up to now I was capable of a pretty sound, but I desired something more substantial. I just had no idea what or how to go about finding it. I asked myself, “could I transform the various tone colors and great diversity of tone layers I heard in my mind into the tone I was creating on my bass?”

Many musicians seek to understand the process whereby one achieves tone color. Is it something that can be physically controlled or is it simply the result of such factors as the personality, emotional state or physical make-up of the player, or the quality of the instrument being played? Or is tone color the result of an even deeper process within the player?

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<sup>231</sup> The former director of the Alexander Alliance in Philadelphia

As I witnessed Professor O'Neill's voice faculty farewell recital, I wondered how exactly she was achieving such a diversity of tone color. Did she know how she produced such a palette of colors? I came to my Alexander lesson with this question. She explained that a lot of tone colors, regardless of the instrument, are born from the deepest place of innocence within the soul of the player, and to put oneself in the place of being vulnerable was a way to invite the soul's expression. However, how could I open myself up to that kind possibility? My Alexander teacher shared her singing experience with me. She explained, "many people see vulnerability as a weakness; however it is from a place of vulnerability that one discovers one's true power. Throughout the ages, every spiritual teacher I have studied has taught this. It is by stripping away pretense, façade and fear of bearing the naked soul that one opens oneself to the possibility of finding the myriad of tone colors housed in the soul."<sup>232</sup> First of all, My Alexander teacher suggested I should not really concern myself about making a beautiful sound or what anyone else thinks about the sound I am making. I must like and trust myself enough to accept the result of my performance just as it is.

My teacher asked me to consider the process we go through every time we carry on a conversation with someone. The nature of the conversation, informs the tone colors we choose to communicate our intentions. Creating tone color for expression is something everyone does

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<sup>232</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, March 4, 2013.

constantly throughout one's day. This ability is so inherent within our beings because we learned it as children and now, as adults, we have forgotten that we do it and even how we do it. It has become an unconscious act. During a conversation with another person, our life force ("chi"<sup>233</sup> or "duende"<sup>234</sup>) is constantly responding to the situation in which we find ourselves, and our life force responds to our emotional and psychological state as well. We are motivated by an intent before we speak. We ask ourselves, "what do I want to say to this person and how do I want to say it?" As we formulate precisely what our intent is, our speech mechanism does our intent's bidding by creating the appropriate tone color and modulation of voice pitch to get our point across. This is the same process one can use to create a broad palette of tone color when sing or playing an instrument.

The primary goal of the Alexander Technique is to bring about the unified whole of the self. For the mind and body to work together harmoniously, the performer must become aware of how her life force is responding to the music she is about to play. This is difficult to do if the mind is solely occupied with trying to play beautifully and with a variety of tone colors. It is common for one's life force to respond differently each time one plays a piece of music. The performer is encouraged to be in tune with the state of her life force and be true to it, whatever its state, without judgment while playing. It is a reflection of who she is at that

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<sup>233</sup> See Chapter 5, the description about "chi" in the section of Focusing and Directing Energy, p.92.

<sup>234</sup> See Chapter 5, the description about "duende", the footnote 114, p.68.

moment and, therefore, the material out of which each musical phrase is born. It is the energy which can be transformed, gathered and directed by her intent. Consider the wild bird whose urge to mate results in a mating call. At that point when the bird cries out, there is no other choice for the bird but that vocal outburst. All aspects of its being converge and agree to this act. So it should be when one makes music. In his book *Singing and Imagination*, Thomas Hemsley quotes the famous voice teacher, Giovanni Batista Lamperti (1839-1910): “Do not sing until you feel that you would die if you didn’t.”<sup>235</sup> The motivation must be that strong in order to focus and direct the energy.

Variety of tone color, whether it is vocal or instrumental, is born out of this kind of oneness with oneself and the music to be performed. Because of this, the physicalization to produce the tone and tone color is primarily unconscious or indirectly controlled. Again from Helmsley, “William Earl Brown quotes his teacher...Lamperti...as saying that the sensation of readiness to sing is:”

Like that of a tight-rope walker as he steps on the wire;  
Like that of a swimmer as he trusts the support of the water;  
Like that of the listener who hears a mysterious sound in the quiet of  
the night;  
Like that of the archer the instant before she releases the arrow;  
Like that of the orchestral conductor, with his baton poised...

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<sup>235</sup> Thomas Hemsley, *Singing and Imagination: a Human Approach to a great Musical Tradition* (NY: Oxford University Press), 25.



All these acts demand a potent vitality, conscious, accurate control of energy, and complete knowledge of the thing attempted.<sup>236</sup>

I discussed earlier how to create various tone colors on the bass technically. Once a bassist has thoroughly learned and incorporated this language, it can be used as effectively as vocal language to express music from the soul.

Playing in the neck position on the G string is a problematic issue for some bassists. As I mentioned before in chapter 5, compared to the other lower strings (D, A, E), the angle of the G string in relation to the bow is bigger than the others. One has to either extend the body more to help the bow hand reach the string or simply use the left leg to tilt the bass towards the bow hand. In addition, playing notes on the neck position of the fingerboard increases the degree of difficulty for the fingering hand to play in tune and with a resonant tone. This transition is awkward because it is necessary for the thumb to shift its position from the back of the neck to the front. Also, the neck is the thickest place on the entire fingerboard. Playing notes on the neck position, the player needs lengthening and widening the torso, and allows the left hand fingers balance itself at that position with space, from the support of the whole arm and the back.

In the following passage (Figure 51), while playing the first G on the G string, I encountered difficulty producing a resonant tone. I was using the Alexander strategies to allow my bow hand to find the most comfortable way to play this note, however, I was still not

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<sup>236</sup> Thomas Hemsley, *Singing and Imagination*, 24.

satisfied the sound I produced. The reason eluded me. After watching me play, my Alexander teacher said, I was paying too much attention to the bow hand and arm, and overlooking the function of the left hand and arm. Because of the angle of the bow in relation to the bass, I was thinking that the two hands were farther away from each other than they actually were. Because of the complexity of playing this note, my attention had become overly focused on the bow hand. Through my work on this passage, I realized the importance of balancing and coordinating my entire body, not just that part that is encountering the most difficulty in playing. Then, I became aware that the two hands were engaged in an elegant *pas de deux*.



Figure 51 Excerpt from Brahms, *Cello Sonata in e minor*, the first movement (m.38)<sup>237</sup>

After practicing the following passage (Figure 52), I was plagued with upper back pain. My Alexander teacher noticed that I was so engrossed in playing this passage in the higher register, that I was collapsing my torso and shoulders forward into the bass. She placed her hands on my upper back to remind me of my back support and encouraged me to remember the space that existed between me and my bass. She also reminded me that it was possible to

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<sup>237</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 1.

maintain a full awareness of myself and invite the body to organize itself even while playing this difficult passage. As I began to sense the support of my back the tone became freer and more resonant. Since I have been employing this procedure while playing this passage, tension in my neck and upper back has decreased significantly.



Figure 52 Excerpt from Brahms, *Cello Sonata in e minor*, the first movement (m.44 to m. 65)<sup>238</sup>

Once again breathing became an issue for me while playing in the high register (Figure 53). This time the high passage was much longer and more sustained, and I found myself holding my breath and taking shallow breaths in an attempt to play it well. My Alexander teacher suggested that I was concentrating so hard on getting the passage correct that I was impeding the free and organic in and out of my breath. To help me find an easy inhalation and exhalation she suggested that I think of myself lightly singing or sighing through the phrase without actually

<sup>238</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 1.

vocalizing it and allow the air flow to match the musical phrase. This little *étude* did help me experience each musical phrase more deeply. It decreased the muscular interference to my breathing, but still, I felt the air was not fully and freely flowing.



Figure 53 Excerpt from Brahms, *Cello Sonata in e minor*, the first movement (m.207 to m.229)<sup>239</sup>

Further, my Alexander teacher encouraged me to abandon any thought of self-criticism about how the passage was sounding and become fully aware instead of how my being was organizing itself to experience and play the musical phrase, being sure that my breathing mechanism and particularly my abdominal muscles were also part of the conversation. Still I

<sup>239</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 4-5.

noticed when my emotional intensity rose to match that of the music phrase, I tightened my abdominal muscles once again. For some reason, I believed I was being more expressive when I tightened my muscles, when really I was blocking the emotional energy. I needed to understand that emotional language is expressed most effectively when one does not force it, but instead thinks of the flow of emotional energy as quite ethereal. She told me that this is a common issue that singers face. Instead, my job was to inhibit, and simply experience the ebb and flow of intensity of each musical phrase, and then to direct myself in such a way that I could express each phrase through the delicacy of my technique.<sup>240</sup>

### **The Second Movement of the Sonata**

The main challenge of this movement is that bassists must play in the higher register for almost the entire movement. Physically, it requires stretching the upper body and leaning the torso forward to reach the high notes on the instrument. Often, leaning forward in this situation creates muscular tension, especially when bassists resort to lifting their shoulders up in an uncomfortable position. This misuse is quite common among bassists.

Sustaining such ease and delicacy of expression over quite a long period of time requires gentle but persistent *direction*, little reminders to oneself to remain undaunted. My teacher called this “thought shepherding.” My teacher encouraged me to cultivate the presence of a benevolent observer, and inner presence and voice that is present to the performance, sees the

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<sup>240</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 4, 2012.

full reality of the quality of the performance without judgment, and makes suggestions as appropriate. The benevolent observer is most accessible when one is practicing *inhibition*, by letting go of “should” and allowing space for remaining in a state of liveliness and ease. The benevolent observer replaces the “harsh critic” within ourselves, the critic whose judgment terrorizes us because we don’t measure up to its standards. The benevolent observer would remind the performer to savor the experience of playing the passage, to see oneself playing each passage with ease, and to approach the playing of each phrase with joyful anticipation.<sup>241</sup>

I discovered truly that whenever I let go of all the “shoulds,” my muscles become freer; the body has more core support and some technical problems are naturally eliminated. My Alexander teacher said, while resolving the technical problems, it is also necessary to work on them by bringing my entire self to the resolution process. Most humans acknowledge that they are more than just a body and a mind. It is those other more intangible aspects of our being that can also contribute greatly to the learning process and participate in artistic expression. These other aspects of ourselves which are a part of our essence cannot be separated healthily from the whole. In essence we are indivisible. As I see it, the spirit, mind, and body are all one. Having attended many performances over the years, my Alexander teacher shared her experience with me: “I have heard a lot of musicians who sing and play with technical prowess and make

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<sup>241</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 18, 2012.

pretty, even beautiful sounds, but their performances did not move me. The performers had not gone deeply enough within themselves to ask what their souls wished to communicate.”<sup>242</sup>

For me, the music in the following passage is churning with emotional turmoil, full of sadness and longing for love (Figure 54).



Figure 54 Excerpt from Brahms, *Cello Sonata in e minor*, the second movement (m.77 to m.107)<sup>243</sup>

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<sup>242</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, December 18, 2012.

<sup>243</sup> Johannes Brahms, „Sonate Für Violoncello und Klavier, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 6-7.

Could it be a tortured mind struggling to endure unrequited love, as Brahms' surely did as he struggled to come to grips with losing Clara Wieck to Robert Schumann? Halfway through the passage a series of little sighs (Figure 54, m87-89 and 99) suggests a longing that can never be fulfilled. Its emotional intensity is like a volcano continuously erupting but without ever coming to an emotional resolution.

I felt this music so deeply, but when I tried to express this high level of emotional turmoil on my bass, I found myself over efforting. My Alexander teacher said every artist has to come to grips with this dilemma. She encouraged me to continue to direct my energy lightly, despite my desire to over tense my muscles to express the intensity in the music. "Don't underestimate the power of the 'the fairy wish,'" she encouraged me.<sup>244</sup> She used the sigh passage as an example to demonstrate her point. She said, when we sigh, the sigh originates quite deeply from the core of the body (Dan Tian) and is always the result of an intent to express an emotion one has felt. This is always the process whereby human beings express themselves. Energy is quite quickly transformed and directed by our thinking. If we believe that energy is hard to direct, it will obey by being hard to direct. It will also obey, if we believe energy is easy to direct. Our thinking is capable of directing the energy lightly yet powerfully to achieve whatever intensity we desire. It is our responsibility to allow the music to inspire us with a

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<sup>244</sup> See Chapter 3, the description of "the fairy wish" in the section of *direction*, p.41.



comparable emotional energy and then direct that energy with the intent which the musical passage demands.

Our imagination can also play an important role in helping us find ease regardless of the intensity of the music we are playing. Utilizing imagery, we can create a picture to which our being can respond, such as a never ending spiral whose movement perpetuates its self. A playful image such as a roller coaster or a magic carpet can lighten one's heart so that one does not over effort when approaching a difficult passage.

Now that we truly believe that our energy can be directed lightly, yet powerfully, our next step is to find a connection to the earth through our feet. Sending our feet into the ground allows the energy to move up through the feet as the body organizes itself to experience the musical passage according to our intention.<sup>245</sup> The energy is repetitive and wave like, moving through us as we give ourselves to the force of gravity.

As I fully grasped this concept, my mind was quieted and I felt fully present in the moment. As I sensed my body's core (Dan Tian), my breathing deepened. I sensed my whole body was full of energy, while at the same time both legs seemed to lengthen to the floor, like a tree rooting deeply into the ground. At that moment, I could sense my body was doing some subtle adjustments in preparation for playing my bass. As I started playing, the music was singing in my mind. For the very first time I was hearing in my mind the music I was playing. I was so

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<sup>245</sup> See Chapter 5, p. 67-68, the conversation between Vivien Mackie and Joe Armstrong. Vivien Mackie, *'Just Play Naturally'*, 78.

caught up in playing the music that I didn't judge myself for missing notes or playing out of tune. Soon, I felt like there was a tornado-like wave moving through me as if someone had hit a chess board, sending all the pieces flying. Suddenly, I was overwhelmed. I felt like I was going to lose the control. My Alexander teacher said I was not losing control. I was just finding a different type of control, something I was not used to experiencing.<sup>246</sup>

As an experienced musician, my Alexander teacher said: "you have to let go of control to get control. When you give yourself to gravity, in a way you let go of control. You stop trying to hold yourself up with the large voluntary muscles, so that the smaller involuntary postural muscles may give you an effortless up. When you do that, a different kind of control is activated. It is called primary support and it is a much more reliable path to uprightness than trying to hold ourselves up. You experienced a moment of body and mind working together as they were designed to do in every activity."<sup>247</sup> She commented on how I had played this time. She said, "the tone seemed to be coming from a much deeper place. There were minor mistakes, but if you keep practicing in this way, those technical issues will diminish." I had experienced once again a profound psycho-physical re-education. If my mind can be quieted to direct with calm yet clear and purposeful intention, my body will respond appropriately.<sup>248</sup>

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<sup>246</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 18, 2012.

<sup>247</sup> Ibid.

### **The Third Movement of the Sonata**

For bassists, this is the most challenging movement in Brahms' *Cello Sonata in e minor* in terms of mental, physical, and technical issues. For instance, the bass part is almost non-stop throughout, offering the bassist little time to pause and refocus. Large jumps in the musical line require the left hand to move all over the entire fingerboard from the lower register to the higher register (see the first two notes of m.9 and m. 25-27 of Figure 55). In m. 17-19, Figure 55, the stretching left hand fingers must move quickly, in order to play a sequence of paired notes in the high register at a tempo marked *allegro*, thus increasing the difficulty of maintaining accurate intonation. The above technical issues were the difficulties I encountered in the opening of this movement. In addition, I will address how my Alexander teacher helped me deal with mental obstacles, which were impeding my technical playing of this difficult movement.

For me this movement presented similar and even more difficult challenges than the first and second movements. The music in this movement is in turn relentlessly rhythmic, intensely dramatic, and romantically lyrical. For me the music inspired the image of a brave heroine, who was ready to face the difficult realities in her life. Mentally, I thought I had to play louder and heavier to match my image of this noble heroine.

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<sup>248</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 18, 2012.



Figure 55 Excerpt from Brahms, *Cello Sonata in e minor*, the third movement (m.1 to m.30)<sup>249</sup>

I believed I needed a lot of more energy than I actually possessed to play this passage on my bass (Figure 55). I believed I needed to create an unbelievable amount of muscular tension to match intensity of this passage. Even before I started to play, I would begin to muscle myself up like the Incredible Hulk. In order to play louder, I also grabbed the bow too tightly which seriously hurt my right hand thumb. My thumb always ached after practicing this movement. Here, my Alexander teacher reminded me once again, the thumb joint is extended

<sup>249</sup> Johannes Brahms, *Sonate Für Violoncello und Klavier*, op.38, transcribed by Gerd Reinke for double bass (Berlin: Ries und Erler, 1990), 8.

to the wrist. She also reminded me that thumb joint is fully supported by the radius, the whole arm, including the clavical. These reminders were helpful, but to trace the root of the matter, I found that I believed I was too small to handle this music. It was simply out of my reach and inaccessible due to my size.

My Alexander teacher asked me, “what if size were not a factor at all?” Could my mind get around it then? My Alexander teacher told a story about one of the scenes in Star Wars; “the tiny Jedi master, Yoda, lifted an entire a space ship out of the marsh. His pupil, Luke, tried to do it but he couldn't. He believed that the ship was too big to lift up and onto the land. Yoda said: size matters not. After Luke fails, Yoda does bring it up, out of that marsh onto the land. Astonished, Luke said: I don't believe it. Yoda answered: that is why you fail.”<sup>250</sup> This little story convinced me that my mental struggles with this passage were impeding my technical skills. My teacher asked me to approach this passage believing that it was well within my grasp to play. She reminded me, as she had previously, that my new belief must not be the result of will power, but of “a quiet knowing,” “a fairy wish.”<sup>251</sup> I was about to learn even more deeply within myself about F. M. Alexander's concept of *direction*.

As my mind began to transcend this mental obstacle, I noticed my body releasing a lot of tension. My teacher observed that my face seemed to be less tensed than before. Before even

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<sup>250</sup> Patricia O'Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 11, 2012.

<sup>251</sup> See Chapter 3, the description of “a quite knowing” and “a fairy wish” in the section of *direction*, p.41.

touching the instrument, I could sense clearly that I was using myself totally differently. All the extra muscling I had been doing seemed unnecessary because my mind believed that my size was not an issue in unleashing the energy necessary to play this powerful passage. I had taken a giant leap in understanding the power of direction.

From a technical point of view, when practicing the above passage (Figure 55), I found my left hand was extremely tight and tired easily. My Alexander teacher applied her trained hands to remind me of the space in my elbow joint. She also lightly touched my palm to remind me, that while I touched the string, there was a space between the left hand fingers and the string. Further, I had a problem playing the triplets in Figure 55, m.14 evenly because the finger position must change quickly to reach the highest note. I was worried about missing any of notes as I approached the high note.

To remind me once again to direct myself lightly, my Alexander teacher said, “what if you told yourself that it is a ‘piece of cake’ to play this passage?” She often injects a bit of humor to defuse a pattern of wrong thinking. At the same time, she encouraged me to free my bow hand to stabilize my left hand. I found while thinking this way, my bow hand and left hand somehow came into balance with each other. I was surprised I could play those triplets (m.14 of Figure 55) more evenly while thinking the above direction in my mind.

A big change of mood commences in m. 16 (Figure 55). The movement begins *forte* (from the beginning to m.15) and decreases to m.16. Then suddenly Brahms introduces a more

lyrical section (from the m.16 of Figure 55). My Alexander teacher said I should be fully aware and ready to embody each change in mood. Teasingly, she said, ‘it would even be ok to enjoy, even savor this lyrical moment. She asked me what I thought the intention of this phrase was. To me the music seemed to be searching for an answer. She encouraged me to stay with my intention even when I did not play the section perfectly. “When the intention is clear eventually the body will find the proper balance to express it,” she said. She encouraged me to stay with this ‘searching for an answer’ attitude and have fun playing the paired little jumps there (m.18 of Figure 55).

Finally when the musical line crescendos to a huge climax in m.25-27 (Figure 55), my Alexander teacher said, “let go of being afraid of playing out of tune in these large jumps. The body will get them accurately for you, if you are clear in your mind what the large jumps are. You have certainly practiced them enough.” According to what my Alexander teacher said, as mentioned above, our bodies simply know how to do it and where to go if there is clarity of thought (clear *direction*) and no mental and physical obstacle. This idea resonates with Pablo Casals’ philosophy in teaching. In ‘*Just Play Naturally*’, Vivien Mackie talks about how Casals taught his pupils to play large jump notes accurately. Casals said that “*if you know where you are going, the journey is no problem.*”<sup>252</sup>

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<sup>252</sup> Vivien Mackie, ‘*Just Play Naturally*’, 72.

Casals explained, “there is a “succursale” [“branch office”] - of the brain” that takes care of these things.<sup>253</sup> Vivien Mackie demonstrated this idea further,

Another wonderful thing, which I didn’t discover until much later when I’d had some anatomy training, was about the physiology of stretch. Casals knew that stretching, leaping fingers were very good. He knew that they were more accurate. Sometimes when I was confronted with these colossal kangaroo capers, I’d say, ‘Why this?’ and he’d say, ‘Because it’s safer,’ and he was always right. But it always seemed so much more dangerous at first then the familiar moving ‘en bloc.’ And I was showing some of these fingerings one day to Don Burton [anatomy instructor in the Alexander teacher training, and I said, in passing, ‘They seem to be more accurate and more sensitive, but I don’t understand why.’ And he said, ‘But I do! You see, a muscle with a degree of stretch on it is sending more information to the brain!’

I got this picture of actual brain tissue in my fingertips, and this was a new idea altogether- that my *fingers* could *know*! ...the finger can actually select the spot, and you don’t have to do it up there at ‘head office.’ You may let your fingers take responsibility...*They* knew where to go.<sup>254</sup>

I found that when I practiced the above Alexander principles, at the same time involving my whole being, not just a portion of the body in coordinating with the instrument, my psychophysical whole was enabled to find more ease and balance in the every movement. The tricky passages I encountered in this passage were suddenly not as hard as they had been. The

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<sup>253</sup> Ibid., 80.

<sup>254</sup> Vivien Mackie, ‘*Just Play Naturally*’, 80-81.



process starts with the quality of the *direction* or “fairy wish,” which helps the body know what the mind wants and how to get it. The intention is light but powerful. No forced will power over the body is necessary, otherwise, one starts muscling. However, the human mind has difficulty with that. In our society, our minds do not trust in the body’s innate intelligence.<sup>255</sup>

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<sup>255</sup> Patricia O’Neill, Professor of Voice, Certified Alexander Technique Teacher, School of Music, Louisiana State University, Baton Rouge, LA. Interview by Yun-Chieh Chou, September 11, 2012.

## **CHAPTER 7**

### **CONCLUSION**

I have been helped by the Alexander Technique principles to use my psychophysical whole to the best advantage in double bass playing. I have benefited from the value that the Technique has for relieving problems of physical tension. These results will be discussed along with evidence for the effectiveness of Alexander Technique lessons in medical and health-related areas.

Judith C. Stern, a certified Alexander Technique teacher and a physical therapist, helped a man who had been nagged by chronic back problems for decades by applying the principles of the Alexander Technique. The man got injured while trying to lift and move something heavy and had a notable medical history. He underwent four surgeries and applied different medical methods in the attempt to relieve the pain, but everything he did was fruitless. The back problem made his body too painful to sit, even just for eating a meal. He described himself as “living in a tunnel where I push to get through the necessary work, and then collapse.”<sup>256</sup> He commenced having Alexander lessons, twice a week, along with one physical therapy session for each week and continued the lessons for almost a year. During that time, he made some

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<sup>256</sup> Judith C. Stern, Case study on Back Pain, American Society for the Alexander Technique, <http://judithcstern.com/backpain-tom.html> (accessed Nov. 1, 2012)

important progress and his back pain was improved strikingly.<sup>257</sup> In Table 1, I present my case in comparison with Judith C. Stern's case.

Table 1<sup>258</sup>

| Milestone of the improvement | The subject from the case study on back pain                                                            | Me                                                                                                                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| At three weeks               | The pain in one leg had improved and he was able to sit with ease.                                      | No record available                                                                                                                                                                              |
| At three months              | No need to have pain medication and used the brace to support the back; was able to sit during working. | Neck and shoulder strain had improved.                                                                                                                                                           |
| At four months               | Able to apply the Technique to control the body's pain.                                                 | Upper back strain had lessened.                                                                                                                                                                  |
| At six months                | No record available                                                                                     | The muscle tension in my right leg had improved.                                                                                                                                                 |
| At nine months               | "He was experiencing life outside 'the tunnel'" and was able to enjoy outdoor activities.               | The pain on the left side of the lower back had lessened; became aware of how I use my body in daily activities and was able to apply the Technique to use my body with less muscle contraction. |
| At eleven months             | No record available                                                                                     | The pain on the left side of the lower back had disappeared.                                                                                                                                     |

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<sup>257</sup> Judith C. Stern, Case study on Back Pain, American Society for the Alexander Technique, <http://judithstern.com/backpain-tom.html> (accessed Nov. 1, 2012)

<sup>258</sup> The information of this case study on back pain is from <http://judithstern.com/backpain-tom.html>

(Table 1 continued)

| Milestone of the improvement | The subject from the case study on back pain | Me                                                                                          |
|------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------|
| At twelve months             | No record available                          | Being aware of not to interfere with my breathing process, I am able to breath much freely. |

According to the outcome from my personal Alexander experience, the above case study on back pain,<sup>259</sup> and the result of the effectiveness of Alexander Technique lessons for different medical conditions,<sup>260</sup> it is clear that long-termed Alexander Technique lessons can significantly improve the condition of chronic back pain. This evidence reminds me of F. M. Alexander's core concept in his Technique, that how we use ourselves affects the functioning of the bodily mechanisms. In *The Use of the Self*, Alexander commented on the close relationship between the unsatisfactory manner of bodily use and disease.

It is obvious that once we are aware of the cause of disease, we have some chance of dealing successfully with it, and that there would be fewer tendencies for parts of the organism to become diseased if the functioning of these parts were satisfactory. The connection between disease and wrong functioning should be generally recognized and it should also be recognized that where specific symptoms of disease have been diagnosed, *the associated*

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<sup>259</sup> Judith C. Stern, Case study on Back Pain, American Society for the Alexander Technique, <http://judithcstern.com/backpain-tom.html> (accessed Nov. 1, 2012)

<sup>260</sup> J. P. Wood and N. R. Moore, "Evidence for the Effectiveness of Alexander Technique Lessons in Medical and Health-Related Conditions: a Systematic Review." *International Journal of Clinical Practice* 66, no. 1 (Jan. 2012).

*wrong functioning is always associated in its turn with undesirable use of the mechanisms of the organism as a whole.* This association has been borne in upon me by my teaching experience, which has taught me that in the process of improving the use and functioning of the organism *as whole* specific symptoms of disease tend to disappear or to be eradicated.<sup>261</sup>

Therefore, specific symptoms can be associated with the wrong use of the mechanisms of the organism. Continuously cultivating the wrong habitual use of ourselves lowers the functioning of the body and disorder will come to us one day, sooner or later.

The benefits of the Alexander Technique reach far beyond just adjusting posture for playing an instrument or in other human activities. “It is a re-education of habitual movement patterns so the body is used efficiently with the least amount of wear and tear;”<sup>262</sup> it allows the body the possibility to move into more and more spaciousness, to more and more lengths, to more and more width, ultimately balancing the mind and body into a unified whole.

Our beings are designed to function as a whole, where mind and body are always interacting. When integrating mind and body processes while playing, musicians should not think of themselves as separate from their instruments or from the music they are playing. Alexander Technique provides the tools remind them of the interconnectedness of all things.

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<sup>261</sup> F. M. Alexander, *The Use of the Self*, 93.

<sup>262</sup> Hillary Mayers and Linda Babits, “A Balanced Approach: The Alexander Technique,” *Music Educators Journal* 74, no. 3 (November 1987): 51.

Practicing the Alexander Technique involves learning the concepts (such as *awareness*, *inhibition* and *direction*, and *primary control*) and incorporating them into one's life. It is not a fast process, but it can be and often is life changing.

My intensive work with a trained Alexander Technique teacher, who, with verbal guidance and trained hands, has revived my sense of balance, coordination and overall ease in use of myself and given me the tools to work through any problems I might encounter while playing my bass. Now, I am beginning to sense how to play my bass with ease and understand what my habits are and which of these habits need to change. I am more engaged in what I am doing and I am constantly handling myself more gently. Further, a lot of difficulties that I had encountered in bass performance gradually disappeared through the course of Alexander Technique lessons and I am continuing to work on the Alexander Technique procedures (Constructive Rest and Position of Mechanical Advantage) in my daily life.

The application of the Technique to double bass performance has been imperative for me. Among other benefits, I have been able to find much more stamina for long and strenuous rehearsals and performances, and have found more peace with myself while playing, by learning to focus my thoughts. By releasing excessive tension and letting go of negative thinking, a serendipitous result is that I have been able to find more variety of tone color and nuance in my playing.

I will practice the Alexander Technique for the rest of my life, as I continue to grow and evolve as an artist-teacher and a human being. Alexander Technique is considered a lifelong study. Although F. M. Alexander did not develop the Technique specifically for bass players, yet Alexander Technique instruction has shown to improve various aspects of playing for many musical instruments. It is widely embraced and praised by the broad artistic community. I hope that this study will benefit string players, compel further study in Alexander Technique and help bassists achieve a more comfortable approach towards double bass performance.

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## APPENDIX: LETTERS OF PERMISSION TO COPY

From: rareclassiccds

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To: Yun-Chieh

**Re: Request the permission for using the score of Brahms cello sonata in e minor in my monograph**

April 18, 2013 2:07 AM

● Mark as Unread

Dear Mr. Yun-Chieh Chou

Yes you can.....

Please can you mail to me the postadresse from  
Prof. Yung-Chiao Wei.

Regards Gerd Reinke (Prof. of Db)

**Von:** LSU <[ychou1@tigers.lsu.edu](mailto:ychou1@tigers.lsu.edu)>

**An:** "rareclassiccds@yahoo.de" <[rareclassiccds@yahoo.de](mailto:rareclassiccds@yahoo.de)>

**Gesendet:** 3:07 Dienstag, 16.April 2013

**Betreff:** Request the permission for using the score of Brahms cello sonata in e minor in my monograph

Dear Mr. Reinke,

My name is Yun-Chieh Chou, a doctoral candidate at Louisiana State University in America. I am a bass student from the studio of Prof. Yung-Chiao Wei.

I am writing a monograph about how the Alexander Technique principles can facilitate double bass performance in Brahms' cello sonata in e minor.

May I allow to use your score in my monograph?

Thank you very much

Yun-Chieh Chou

From: Yungchiao

Hide

To: Yun-Chieh

**Re: Request the permission for using the score of The Butterfly Lovers' Violin Concerto**

April 18, 2013 6:50 PM

● Mark as Unread

It's ok to use what you have in your monograph. Do not put the whole thing on line!

Sent from my iPad

On 2013/4/18, at 18:47, LSU <[ychou1@tigers.lsu.edu](mailto:ychou1@tigers.lsu.edu)> wrote:

Dear Prof. Wei,

May I allow to use the score of The Butterfly Lover's Violin Concerto which you transcribed for double bass in my monograph?

Thank you very much

Yun-Chieh

## VITA

Yun-Chieh Chou was born in Taiwan. She received her first piano lesson at the age of nine and double bass lesson when she was fourteen. At the age of thirteen, she won an Excellence Award in piano competition of The Royal Institution of Music and made her piano recital debut in Kaohsiung, Taiwan. At the age of sixteen, she attended the Special Music Program in Lo Yu Senior High School for three years under Shih Pin Chen, the principal bassist in Kaohsiung City Symphony Orchestra. While studying in high school, she won the third prize in Chinese poetry reciting competition and earned an outstanding student scholarship. In 1997, she continued her musical studies in Tunghai University and majored in double bass performance under Meng Chun Lu, an acting principal bassist in the National Taiwan Symphony Orchestra. While studying in college, Yun-Chieh was nominated as an outstanding student to Ministry of Education in Taiwan and was the scholarship recipient of the Stuart Xing Cheng prize. She was offered a full time assistantship by the graduate school to continue her musical studies in Tunghai University. In 2005, she came to America to continue her musical studies and earned her Master of Music at Louisiana State University in Spring 2007. Yun-Chieh is currently a member of the Honor Society of *Phi Kappa Phi* and a doctoral candidate in double bass performance at Louisiana State University where she has been studying with Prof. Yung-Chiao Wei for eight years. During her doctoral study, she advanced to the Louisiana State University Instrumental Concerto Competition finals in 2010. She presented a session on

“Primary Control, Conscious Control, Inhibition and Direction” for 2012 convention of Louisiana Music Teachers Association in Monroe, Louisiana. In 2013, she won the 1<sup>st</sup> prize in the Louisiana Bass Fest Young Artist Competition. As an orchestra player, Yun-Chieh has been serving as a bassist performing with the Acadiana Symphony Orchestra, the Louisiana Sinfonietta, the Rapides Symphony Orchestra, and the Baton Rouge Little Theater in Louisiana.