I, Sae Rom Kwon, hereby submit this original work as part of the requirements for the degree of Doctor of Musical Arts in Violoncello.

It is entitled:
Basic Principles of the Alexander Technique Applied to Cello Pedagogy in Three Case Studies

Student’s name: Sae Rom Kwon

This work and its defense approved by:

Committee chair: Yehunda Hanani, MM
Committee member: Bruce McClung, PhD
Committee member: Won-Bin Yim, DMA
Basic Principles of the Alexander Technique Applied to Cello Pedagogy
in Three Case Studies

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by

Sae Rom Kwon

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Committee Chair: Yehuda Hanani
Abstract

The Alexander Technique helps its adherents improve posture and to use muscles and joints of the body efficiently. F. Mathias Alexander, an Australian actor, developed the technique in the 1890s to deal with difficulties he experienced on stage, such as chronic hoarseness. The technique attracted many followers in subsequent generations, including musicians, who are prone to physical problems due to long rehearsal hours. Elizabeth Valentine and others have sufficiently shown the effectiveness of the Alexander Technique for musicians through clinical studies. The focus of this document is more practical in nature. It consists of three case studies of individual cello students who struggle with specific problems to examine the results of practical solutions drawn from the principles of the Alexander Technique. Within five concurrent lessons, each student demonstrated consistent improvement in their problem areas. These case studies provide a basic introduction to this method and can help applied music teachers see the benefits of applying the Alexander Technique in the studio.
Acknowledgments

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I would also like to thank the families and students involved in the case studies for their willingness to participate, and to GIA Publications for allowing me to reprint materials beneficial to my document.

Lastly but not least, I thank God for giving me wisdom and strength throughout this process. Soli Deo gloria!
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Table of Contents

Abstract .......................................................................................................................... ii

Acknowledgments ....................................................................................................... iv

Copyright Permission ................................................................................................. v

List of Illustrations ....................................................................................................... vii

Introduction .................................................................................................................. 1

Part I: Alexander Technique

Chapter 1. Basic Principles ......................................................................................... 5

Chapter 2. Body Mapping ............................................................................................ 10

Chapter 3. Lesson Plans ............................................................................................... 18

Part II: Case Studies

Chapter 4. Case of Julia .............................................................................................. 21

Chapter 5. Case of Amy .............................................................................................. 35

Chapter 6. Case of Jason ............................................................................................ 49

Part III: Findings

Chapter 7. Findings from Julia, Amy, and Jason ....................................................... 63

Conclusion .................................................................................................................... 66

Bibliography ............................................................................................................... 67

Appendices .................................................................................................................. 76
## List of Illustrations

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustration 1</td>
<td>The Head on the Spine</td>
<td>11</td>
</tr>
<tr>
<td>Illustration 2</td>
<td>Free Neck vs. Tight Neck</td>
<td>12</td>
</tr>
<tr>
<td>Illustration 3</td>
<td>Arm Joints</td>
<td>13</td>
</tr>
<tr>
<td>Illustration 4</td>
<td>Hip Joints and Sitting Bones</td>
<td>14</td>
</tr>
<tr>
<td>Illustration 5</td>
<td>Back Muscles</td>
<td>16</td>
</tr>
</tbody>
</table>
Introduction

My own involvement in the Alexander Technique informs this current study, and like many of the proponents of the Technique, my excitement comes from first-hand experience of its benefits. I first started taking Alexander Technique lessons with Julia Guichard at the CCM Summer Festival in Spoleto, Italy in 2010. I had suffered for several years from low back pain on and off as a result of long rehearsals, and had treated the discomfort with massage, chiropractic, and physical therapies, all of which treated the pain temporarily, but did not permanently solve the problem. The pain became worse in Spoleto as the chair they offered was in poor condition and daily orchestra rehearsals lasted from three to five hours. I went to the Alexander Technique class hoping to get rid of my low back pain. After about three lessons, I found myself playing in the long rehearsals with no pain. In addition, I noticed a greater ease and strength in my playing and a decrease in tension. After that summer, I studied the Technique with Jennifer Roig-Francoli in Cincinnati. I have also had the opportunity to have a lesson with a noted Alexander Technique specialist and cellist Pedro de Alcantara, who is the author of *Indirect Procedures: A Musician’s Guide to the Alexander Technique*.¹

F. Mathias Alexander (1869–1955) was an Australian actor who suffered from frequent bouts of hoarseness and loss of voice on stage. After finding no help from a medical doctor, Alexander began to observe himself in front of mirrors to see if the trouble derived from the way he used his voice. Noticing that in his recitations, he tended to pull his head back and down, tighten his neck muscles, and inhale through his mouth, he concluded that good posture and breath control, among other things, were crucial to developing good technique devoid of strain and unnecessary tension. From these experiments he began to develop what would become

known as the Alexander Technique. This Technique focuses on finding the “means of inhibiting habitual and damaging use of the body in order to achieve kinesthetic lightness.”² His four monographs, *Man’s Supreme Inheritance*, *Constructive Conscious Control of the Individual*, *The Use of the Self*, and *The Universal Constant in Living*, detail both his theories and the manner in which he arrived at his conclusions.³

Apart from Alexander’s own writings on the subject, there exists a large body of literature on the Technique, both with non-musical and musical applications. Alexander’s assistant, Patrick Macdonald, is especially important, and his monograph, *The Alexander Technique as I See It*, is one of the most consulted texts on the subject.⁴ He explains in detail Alexander’s discovery and provides much more instruction than Alexander did on how to teach the Technique. His student, the cellist Pedro de Alcantara applied the principles of the Alexander Technique directly to musicians especially addressing mental attitudes, co-ordination, rhythm, practice sessions, and stage fright.⁵ A resource for self-study of the Technique is *How to Learn the Alexander Technique: A Manual for Students*, by Barbara Conable and William Conable.⁶ They use the Alexander Technique but also add to it with their emphasis on body mapping, which is one of the most valuable aids in correcting the faulty sensory appreciation. Providing many illustrations of the human body, they demonstrate how the bones and muscles should work

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in relation to one another. An important experimental study on the effects and benefits of the Alexander Technique to musicians is by Elizabeth Valentine, a psychologist at the University of London, who has published several articles about the Alexander Technique. In 1995 Valentine conducted a large-scale examination, randomly selecting singers, violinists, cellists, pianists, organists, flautists, clarinetists, an oboist, and a trombonist, and giving them each fifteen Alexander Technique lessons. The participants showed improvement in the following areas: “overall musical and technical quality, heart rate variance, self-rated anxiety, and positive attitude to performance.”

That the Alexander Technique progressed from practice into theory, rather than vice-versa, explains its profound practical credibility. As Macdonald, an early student of the Alexander Technique, explains:

Because Alexander was essentially a practical man, the story of his discovery and the theory that he deduced from his many practical experiments highlight the authenticity and authority of the main concepts contained in the Technique. These concepts have remained constant in over sixty years of practical tuition.

Valentine describes the purpose of the Technique as follows:

Alexander’s aim was to re-educate people kinesthetically in what he termed “good use,” a coordinated and balanced distribution of muscle tension throughout the body, resulting in an attentive state attainable under stress. Habitual, automatic reactions are inhibited in an attentive state attainable under stress.

While many studies exist demonstrating that the Alexander Technique can be beneficial to musicians, the purpose of this study is to test the benefits of the Alexander Technique in practical situations for specific cello students who struggle with habits that limit their success. In

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8 Macdonald, The Alexander Technique as I See It, 8.
9 Valentine, “Alexander Technique,” 179.
applying the principles of the Alexander Technique to cello pedagogy, I have conducted three case studies consisting of five consecutive lessons with individual cello students from my studio, selecting students of different ages, backgrounds, and levels. Each student, Julia, Amy, and Jason, manifested distinct problems. Julia had a tendency to slouch her shoulders and drop her neck toward the fingerboard whenever she played in the higher positions. Amy had a constant movement of her head and twitching in her face especially when she played difficult passages. Jason had excessive tension in his left hand and had difficulty in shifting with ease. I had addressed these problems in each respective student before in previous lessons; however, the student continued to manifest his or her particular physical obstacles. These case studies were an attempt to help them overcome these deficiencies by incorporating some principles from the Alexander Technique. I understand that they do not constitute a precise clinical investigation, which would go well beyond the scope of this document. Instead, they are a brief but focused examination of specific problems and their possible remedies. Because every student responds to instruction differently and learns at different rates, direct comparisons of the students to each other are not part of the current study. Rather, the lessons for each student were assessed by noting effective changes in the following areas: tone production, efficiency of the left hand, coordination of the left and right hands, and general ease in playing the cello.

This document is in three parts. The first part (chapters 1–3) covers the principles of the Alexander Technique and Body Mapping as well as the lesson plans I had devised for the case studies based on these principles. The second part (chapters 4–6) includes written accounts of the three case studies. The concluding chapter provides assessments of the improvement or non-improvement of each student over the five lessons.

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10 I have used pseudonyms to preserve confidentiality.
Part I: Alexander Technique

Chapter 1: Basic Principles

Unity of Body and Mind

The interrelationship of body and mind is the core concept which underlies the principles of the Alexander Technique. Alexander used the term “psycho-physical” to describe this wholeness of the self.\(^ {11}\) Body and mind are not separate entities but rather work interdependently. In his last publication, Alexander explained this relationship in the following manner:

When once it is recognized that every act is a reaction to a stimulus received through the sensory mechanisms, no action can be described as wholly “mental” or wholly “physical.” The most that can be said is that in some acts the “mental” side predominates and in others the “physical.” For instance, let us take the act of lifting the arm, which would be described off-hand by many people as a “physical” act. If we consider what happens between the receipt of a stimulus to lift the arm and the performance of the act, we shall see that a concerted activity takes place which brings into play not only the processes which most people are accustomed to regard as “physical,” but also the processes which they regard as “mental.”\(^ {12}\)

For Alexander, there is an equal importance in considering a consciously controlled mind as well as dealing with physical difficulty. Often times, however, the mental aspect is neglected or not treated as significant as the physical aspect. Alcantara explains this issue as follows:

For the convinced Alexandrian, “thinking” refers not to a purely intellectual activity, but to an activity of the self in living. According to this view, correct thinking always leads to correct acting, and correct acting always ensues from correct thinking. Indeed, the two are inseparable.\(^ {13}\)

This unity is necessary for improving musical playing by way of the Alexander Technique as well. Although the execution of the technique itself can be regarded as physical action, it is the mind that sends directions to any bodily movement. Ivan Galamian, one of the most influential violin pedagogues of the twentieth century, denotes that the groundwork in developing technique

\(^{11}\) Alexander, *The Universal Constant in Living*, 169.

\(^{12}\) Alexander, *The Use of the Self*, 42.

“lies in the correct relationship of the mind to the muscles, the smooth, quick and accurate functioning of the sequence in which the mental command elicits the desired muscular response.”\textsuperscript{14}

\textit{Primary Control}

The Primary Control refers to the relationship of head to neck and spine. What Alexander discovered during the course of his self-observation is that the correlation between the head, neck and body regulates the quality of one’s functioning as a whole.\textsuperscript{15} The head should be freely moving and nicely balanced on top of the neck and the spine should not be in anyway contracted. It does not mean having any kind of fixed position of the head. Instead, “Alexander speaks of relativity of the head to the neck, and of these to the back.”\textsuperscript{16} This proper mobility, then, functions as the master reflex which influences and controls all the postural relationships throughout the body. Patrick Macdonald explains:

One of Alexander’s discoveries and one which has immense significance in the learning of the Technique is what he called “The Primary Control”. This is a master reflex of the body, so that by organizing it one can modify all the postural relationships throughout the body. This makes things a lot easier, as it allows the person concerned to concentrate his attention on one particular part of the psycho-physical mechanism in order to modify all parts. This mechanism acts as a master reflex and is concerned with how we wear our heads in relation to the spine and other parts of the body. It is not easy to describe its proper action, which brings about fluidity and grace in movement.\textsuperscript{17}


\textsuperscript{16} de Alcantara, \textit{Indirect Procedures}, 28.

\textsuperscript{17} Macdonald, \textit{The Alexander Technique as I See It}, 6.
When playing an instrument, one is able to achieve effortless freedom of playing if this free relationship remains undisturbed.

*Faulty Sensory Appreciation*

Faulty sensory appreciation teaches the student to distinguish between actual correct postural relationship and use of the body, and that which is wrong but “feels” correct because of long-ingrained habituation. Whether learned consciously or subconsciously, people generally carry themselves with some kind of poor physical habit. The force of poor habits is strong since these have been cultivated over a long period of time. For example, for a person who had a habit of sitting with a slumped back for many years, this posture feels right and proper sitting with a lengthened back would feel wrong. Because poor habits are ingrained in our daily lives so strongly, feelings are often not trustworthy. Alexander writes about faulty sensory appreciation:

> As the readers know, I had recognized much earlier that I ought not to trust to my feeling for the direction of my use, but I had never fully realized all that this implied, namely, that the sensory experience associated with the new use would be so unfamiliar and therefore “feel” so unnatural and wrong that I, like everyone else, with my ingrained habit of judging whether experiences of use were “right” or not by the way they felt, would almost inevitably balk at employing the new use. Obviously, any new use must feel different from the old, and if the old use felt right, the new use was bound to feel wrong.\(^\text{18}\)

Thus, in learning the Alexander Technique, it is essential to acknowledge sensory delusion and to accept that “what is wrong feels right, and what is right feels wrong.”\(^\text{19}\) Gradually, the newly taught experiences that feel “wrong” will replace the old habits which felt “right” as the new sensory experience gets established in the use of the whole self.\(^\text{20}\)

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\(^\text{20}\) Alexander, *The Universal Constant in Living*, 160.
Inhibition

To replace poor habits in an individual, first the desire to react “instinctively” must be inhibited.\footnote{Alexander, \textit{The Use of the Self}, 44.} This process does not mean to inhibit the wrong use of the self directly, but to inhibit the “motivation to act that causes the misuse.”\footnote{de Alcantara, \textit{Indirect Procedures}, 47.} It is also called in the Alexander Technique “non-doing.” In order to consciously inhibit, one needs to simply not do anything. Missy Vineyard, a founder and director of the Alexander Technique School New England, clarifies what it means to inhibit:

Conscious inhibition is the cheapest, safest, and simplest method available to countermand your nervous system’s overactivity. It is the crucial first step to achieve a more skilled use of your body in motion. You don’t have to go on vacation. You don’t have to spend long periods of time stretching muscles. You can consciously tell yourself to bring your attention forward and up to your attic to deactivate the tension and stress within you. It’s free. It’s available anytime, anywhere. You have only to believe it is possible and practice it.\footnote{Missy Vineyard, \textit{How You Stand, How You Move, How You Live} (New York: Marlowe and Company, 2007), 126.}

Means-Whereby and Directions

Turning the inhibition of reacting to the stimulus into results that change behavior requires an attitude that focuses on “how” a certain task is done rather than “what” is done. The means-whereby is the overall approach that focuses on the individual steps rather than the goal, the means rather than the ends. Alexander used the phrase “means-whereby” to describe the following:

The phrase “means-whereby”…indicate[s] the reasoned means to the gaining of an end. These means included the inhibition of the habitual use of the mechanisms of the organism, and the conscious projection of new directions necessary to the
performance of the different acts involved in a new and more satisfactory use of these mechanisms.  

Based on the means-whereby approach, one learns to send consciously controlled directions. The sequence may include directions such as “let your head be forward and up,” “let your back lengthen and widen,” and “let your knees release forward,” among others. By sending directions that are not automatic, one is able to distinguish between effective commands and harmful ones. The Alexander Technique requires a heightened self-awareness throughout the entire process.

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24 Alexander, The Use of the Self, 27.
26 de Alcantara, Indirect Procedures, 58.
Chapter 2: Body Mapping

Renowned Alexander Technique teachers and authors of the book *How to Learn the Alexander Technique: A Manual for Students*, William Conable and Barbara Conable developed the concept of body mapping. It is concerned with the parts of the body and how they work together, physiologically rather than in terms of neurological correlation of the brain and body. Although it uses many graphs and pictures or “maps” to achieve its goals, body mapping should be understood as the knowledge one should have of the parts of the body and the attention given to how they work together. Although it is not one of the original concerns in the Alexander Technique, it offers important and practical “pedagogical tools.”  

A student with incorrect knowledge of body mapping will experience a more difficult time in using the joints and muscles freely. Although there are many areas of body mapping mistakes, I will concentrate on those important for cellists in relation to the Alexander Technique. The most common body mapping error is the wrong location of joints.  

As described in chapter 1, the Primary Control refers to the relationship of the head, neck and back. The joint where the head meets the top of the spine is called the *atlanto-occipital* joint (see Illustration 1). For my students I refer to it as the “nodding joint,” as this is easier for them to understand and remember.

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27 Conable and Conable, *How to Learn the Alexander Technique*, 62.

28 Ibid., 65.

When the nodding joint is well balanced, it allows for free movement of the skull up and down and side to side. However, if the head is contracted down into the spine, the neck muscles will be tense and other parts of the body will be compromised as well (see Illustration 2).

It is crucial to maintain the balance of this joint. I often instruct students to keep a free neck; this illustration helps to present the balance desired with the use of these words.

There are four arm joints, but most people consider only the shoulder joint, elbow joint and wrist joint when pressed. The joint where the collar bone meets the upper torso (sternoclavicular joint) is also part of the arm joints (see Illustration 3).
According to Barbara and William Conable, including all of the four arm joints in the body map is beneficial for efficient arm movement:

The accurate mapping of the joint of the collarbone with the breastbone is critical for free upper torso and arm movement. If that joint is not mapped it is not used. It is held rigid and does not contribute its share of movement when it is needed, as in shooting baskets, or reaching for a cup on an upper shelf, or going to the upper string on the violin. This forces a disproportinate movement onto the second arm joint, the joint of the upper arm with the shoulder blade. That disproportion is a source of strain in activities that require repetitive use of all four arm joints, like swimming.  

This “disproportion” may cause the shoulders to overwork in compensation for misuse. For example, if a cellist struggles with any discomfort or pain in the shoulder, it is important to check

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31 Conable and Conable, How to Learn the Alexander Technique, 51.
to see if he has a correct mapping of all four arm joints. Since cello playing requires constant and repetitive movements of the arms, correct mapping of the arm joints should be considered.

The hip joints are lower than most people think. The location of hip joint is towards the middle of the body, not the waist.\textsuperscript{32} This is where the thigh bones meet the pelvis and the legs bend when sitting (see Illustration 4).


When the legs release away from hip joints, the lower back is allowed to free up.\textsuperscript{33}

\textsuperscript{32} Mark, \textit{What Every Pianist Needs to Know about the Body}, 44.

The sit bones, which are the lowest part of the pelvis, bear the weight of the upper torso when sitting (see Illustration 4). Thomas Mark, the author of the book, *What Every Pianist Needs to Know about the Body*, wrote about the function of the sit bones when sitting:

When the legs are fully bent at the hip joints in sitting, the thighbones are above the sit bones. This permits the weight of the torso to be delivered to the bench, with none of the weight delivered to the legs. We sit on our sit bones, not on our legs. With weight properly delivered to the sit bones, the legs are free to move.\(^{34}\)

Sitting on the sit bones pointing straight down to the chair and releasing the legs out of hip joints are critical for cellists as well as pianists. As mentioned briefly in the introduction, I personally suffered from low back pain for several years. With Alexander Technique lessons, I realized that I had an incorrect understanding of balanced sitting. The way I sat was by locking up the hip joints so that the weight of my upper torso rested on the thigh bones instead of the sit bones, thus putting excessive tension on my lower back. Also, it is important for cellists to understand that the floor holds the weight of the cello and not the knees nor the chest. The Conables explain:

Cellists who trust the cello’s stability at the floor will not over-do elsewhere by gripping at the knees or driving the cello into the chest. Cellists who have a fluid relationship with the cello at the chest and knees are always those who also comprehend their own stability at the sit bones and who move and lengthen the whole torso.\(^{35}\)

For performing musicians, it helps to include the back muscles when using the arms. The root of the physical power in instrumental playing comes from the back, not the arms.\(^{36}\) For cellists, it is especially crucial to include the back to produce powerful, projecting sound. There are several layers of back muscles (see Illustration 5).

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\(^{34}\) Mark, *What Every Pianist Needs to Know about the Body*, 47.

\(^{35}\) Conable and Conable, *How to Learn the Alexander Technique*, 87.

\(^{36}\) de Alcantara, *Indirect Procedures*, 137.
This illustration shows the three layers of back muscles. Thomas Mark explains about these muscles in relation to the arms:

As the picture shows, the back presents a broad expanse of superficial muscles, including some quite large ones, and some with familiar names: trapezius, latissimus, dorsi, deltoid…. All the muscles shown in the third picture attach to the shoulder blade, collar bone, or humerus (some to more than one of those), which are parts of the arm. When we notice this we can understand that although the muscles usually thought of as “back muscles” are located on the back, with regard to function they are arm muscles.\textsuperscript{37}

\textsuperscript{37} Mark, \textit{What Every Pianist Needs to Know about the Body}, 103.
Here, I have only listed the frequently mistaken understandings of body mapping that are especially important for cellists. These mappings played an important role in the creation and the execution of the lesson plans.
Chapter 3: Lesson Plans

In applying the principles of the Alexander Technique to cello pedagogy, I have conducted three case studies of individual cello students from my studio. I have selected three students of different ages, backgrounds, and levels. Before starting the case studies, I discussed with the parents of the three students involved about the purpose, procedure and duration of the lessons. I affirmed that I would use pseudonyms to preserve confidentiality. All of the parents granted me permission to conduct and write about their child. The observations lasted for five consecutive lessons. After each lesson, a self-questionnaire was handed out to help the student remember the material covered in that lesson.

Using the Alexander technique in practical situations, I drew on Barbara and William Conable’s source, and I adopt their language for giving directions to students. They discourage the use of words such as “posture” and “relax,” which can communicate “rigidity” and “collapse,” respectively. Instead, they suggest terms like “elegant, graceful, effortless, grounded, balanced, supported, and stature.” My instructions were designed in this manner. The following presents the basic plan for each lesson regardless of the student, while in the following chapters, I present the lessons as they occurred.

Lesson 1

Objectives: Using the miniature skeleton, I will introduce the concept of body mapping. With the correct understanding of body mapping, it is much easier to use the joints freely. By the end of this session, students will be able to point out where some of the important joints are in the body, such as the nodding joint, the four arm joints and the hip joint. The students will learn to sit with stability on the sit bones, not locking the hip joints, and to have a fluid relationship with the cello.

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38 I have consulted with the University of Cincinnati’s Institutional Review Board (IRB) regarding these case studies. The IRB determined that this project would not be classified as human research.

39 Conable and Conable, How to Learn the Alexander Technique, 82.

40 Ibid., 52.
Supplementary Materials: The visual aids in this lesson consist of a miniature skeleton and a full-size mirror. The miniature skeleton is a practical visual aid which helps the student to correct the body mapping errors. The student will be able to see what he or she is doing through the mirror.

Lesson 2

Objectives: The student will learn about the primary control and will be constantly reminded to think about keeping the neck free. My instructions will help them keep their back lengthened and widened. It is especially crucial for a cellist to have a strong back. By the end of this session, the student will realize their faulty sensory awareness. Most of the time, students do not know what they are doing wrong, and how they misuse themselves, thus allowing them to cultivate bad habits. The inhibition and non-doing process will take place before the student plays the cello. Then, I will verbally give new directions step-by-step, which will help the student avoid old habits.

Supplementary Materials: A miniature skeleton, a picture of the human skeletal system, and a full-size mirror will be the visual aids.

Lesson 3

Objectives: In this lesson, I will explain that the power of the arm comes from the back muscles and how the arm muscles are connected to the upper torso. A powerful sound does not simply come from pressing the bow into the string. Based on this new understanding, the student will be able to recognize the importance of the back in relation to using the arms. In relation to the upper torso, I will emphasize the lower body. The student needs to have both feet on the floor grounded. There needs to be a flow of energy throughout the body. I will continuously emphasize a free neck throughout the lesson. By the end of this lesson, the student will understand that it is possible to draw the bow with a released arm and to project a powerful sound without excessive contraction of the arm.

Supplementary Materials: A picture of the muscular system, both front and back, of the upper torso will be a visual aid. This will help students understand the way in which the arm muscles are connected to the upper torso.

Lesson 4

Objectives: The main focus for this lesson will be the left hand technique, including shifting and vibrato. Since these techniques are each only a partial pattern, the student needs to be able to coordinate with the total pattern (including the primary control, etc.), which regulates the partial

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42 Ibid., 137.
The cause for inefficient shifting and poor vibrato lies in the misunderstanding of the technique and the end-gaining attitude. I will investigate how the student misuses himself. Instead of trying to achieve the end result directly, I will work according to the means-whereby principle. I will ask the student to inhibit the desire of wanting to shift or vibrato. Then, I will give step-by-step verbal instructions, starting from the concept of freeing the neck. By the end of this lesson, the student will learn a new way of working out the problem, and how easy it can be to shift or to vibrato.

**Supplementary Materials:** A full-size mirror will be in front of the student’s chair.

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**Lesson 5**

**Objectives:** The aim for this lesson is to combine all the processes from the previous four lessons. I will continue to ask questions about a free neck, body mapping, sitting, and the arms in relation to the back so that the student is reminded of previous lessons. I will ask the student to take time before playing to become aware of these concepts. I will encourage him/her to think and constantly give directions as he/she plays. As I encourage the student to simply let things happen, without trying too hard, the student will play the same piece from the first week. I will observe the changes in student’s use of self and the execution of the technique.

**Supplementary Materials:** I will use all the materials from the previous lessons as reminders.

It is not the intention of this document to come to a conclusion by making direct comparisons of the three students of this case study. Since each student’s lessons were based on the same plan, overlap does occur between them in the case studies.

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43 Ibid., 47.
Part II: Case Studies

Chapter 4: Case of Julia

Julia is fifteen years old and has been taking lessons from me for about two years. She tends to raise her left shoulder while playing. She has a habit of slouching her shoulder and dropping her head toward the fingerboard whenever she plays in the higher positions. When she plays like that, everything becomes uneasy including coordination, intonation, and tone quality. She usually plays with hollow and small sound resulting from not enough bow pressure. In her left hand, she has excessive amount of tightness. Although these problem areas have been addressed in previous lessons, there has not been a consistent improvement. Throughout the five consecutive lessons, she will play scales in three octaves and the first movement of Bernhard Romberg’s Cello Sonata in E minor, Op. 38, No. 1. This is not a new piece for Julia, and she already learned the notes and bowings before the case study started.

Lesson 1

Enhancing Self-Awareness

At the beginning of the first lesson, I asked Julia several questions drawing from similar queries asked of me when I started Alexander Technique lessons. This procedure is a helpful tool in getting the student to open up and verbalize thought processes, as well as making her aware of herself and her surroundings.

Me: Where are you?
Julia: I’m in a studio.
Me: Where is the studio?
Julia: At the campus of University of Cincinnati.
Me: Where is University of Cincinnati? Can you start from an even bigger place or space?
Julia: I’m on the planet of earth. North America, Ohio, Cincinnati, at the University of Cincinnati campus, third floor studio.
Me: Can you repeat that information slower? And as you are doing that, can you picture the places in your head?

Me: What are you doing here?
Julia: I’m here to have a cello lesson.

Me: Why do you take cello lessons?
Julia: I want to be able to play well.
Me: What do you wish to accomplish by playing the cello well?
Julia: I want to express myself through music. I really enjoy the sound of the cello. I want to make notes on the music sheet come alive. Until it is played and expressed with the instrument, it doesn’t mean anything.

**Body Mapping Session**

*Arm Joints*

Having Julia stand in front of a full size mirror so that she could see herself, I asked her to point out on her body all of the joints of the arm. She pointed to her shoulder, elbow, and wrist. I told her to think of those places as joints 2, 3, and 4, respectively, and that she had missed the first one: the joint where the collarbone connects to the upper torso. She was surprised to learn that this connection was considered part an arm joint. I asked her to put her right finger on this joint (joint 1), and to move her left arm up and down. With this motion, she could feel the movement in joint 1. Together, we named the joints again, 1, 2, 3, and 4.

*Nodding Joint*

I asked Julia to describe where the top of the spine meets the skull. She pointed to the base of the skull. However, I explained that we cannot actually touch this joint, but that inside the area of the head and neck is a joint called the nodding joint, which connects the spine and the skull. Also, I briefly mentioned that it is of the upmost importance that this joint be free and not contracted.
**Hip Joint**

I asked Julia to point to her hip joint and she pointed to her side, the top of the pelvis, right below her waist. I asked her to point to it on the miniature skeleton, and this time she was correct. There was a discrepancy in that she knew exactly where it was on the skeleton, but not in her actual body. I showed her where the hip joints are located and explained that in this joint the leg meets the upper torso.

**What is Releasing?**

In order to explain the process and feeling of releasing something, I gave Julia a demonstration. I had her make a tight fist, then let go. She followed easily. Then I explained what releasing means. Making a tight fist involves active and intentional “doing,” but letting go of the tight fist involves releasing. There is a subtle difference between doing something and letting it happen and releasing falls into this latter category.

**Balanced Sitting**

We turned our attention to the sit bones: I asked Julia to sit down and to pay special attention and consideration to the bones involved in this process. Using the skeleton as a visual aid, I explained that we should sit on our sit bones, and let them come straight down to the chair vertically. We should not squeeze our hip joints inward when we sit. Then, I asked her to place her hand under the buttocks and to feel her sit bones.

I put my hands around her neck and back. I asked her to be aware of the space behind her. Then I could feel a slight release in her ribcage. I asked her to be aware of the space above her. I also told her to think about the nodding joint and that it should be well balanced on top of her spine, not scrunched.

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Most people when asked would similarly point here as the hip joint, but there is no joint at the top of the pelvis. The hip joints are located much lower than what most people think. Please see Illustration 4.
Then, I asked her to adjust so that she is sitting on her sit bones, mentioning that her legs should be released out of hip joints. I moved her legs gently to see if her hip joints were released, and I could move them easily, which was a good response. While doing this, both of her feet were on the ground. I asked her how she felt, and she said that it felt different, saying, “I’m not used to using these muscles.”

_Sitting with the Cello_

I asked her to explain what part of her should hold the cello to keep it from falling, and she answered that it was her knees. When I handed her the cello, it was obvious that she had more considerable tension in her thighs and knees while playing the instrument. I explained that it is the ground that holds the cello up, and that she does not need to squeeze her knees to hold the cello. The knees should only come into minimum contact with the cello to keep it stable. I also explained that there is no one fixed posture to play the cello, but rather, it should be a fluid relationship. Drawing her attention again to her sit bones, I asked her to move according to the direction of my hands. She understood what it meant and responded well. I reminded her to be aware of her neck, back, arm joints, sit bones, hip joints, knees, and with both feet on the ground. Then I asked her to play a C major scale in three octaves.

_Teacher Observation_

The first thing I noticed was how straight her bow arm was. There was more elegance and fluidity than before. The tone quality was much better and there was a more open and projecting sound. (Her sound is often a bit hollow.) Her high position was good and she did not drop her head or her shoulders. Then, as she played through the first movement of the Romberg sonata, I noticed that her old habits were still apparent, but already there were clear signs of improvement especially in her bow arm and in her tone quality.
I handed out the self check-up questionnaire sheet and asked her to use it before every practice session.

**Lesson 2**

**Review from the Previous Lesson**

In describing her practice she said that she used the list of questions before practicing about every other day. I asked her if she had anything to say about her practice. She responded by saying her right shoulder used to hurt after practicing the cello, but it didn’t hurt this week. This new comfort is the result of including the first arm joint in her boy map. As Barbara Conable writes:

> The accurate mapping of the joint of the collarbone with the breastbone is critical for free upper torso and arm movement. If that joint is not mapped it is not used. It is held rigid and does not contribute its share of movement when it is needed...this forces a disproportionate movement onto the second arm joint, the joint of the upper arm with the shoulder blade. That disproportion is a source of strain in activities that require repetitive use of all four arm joints.45

**Recognition of the Old Habit: Video Recording**

In order to help students become aware of what they are actually doing in contrast to what they think they are doing while playing the cello, I chose the option of video recording. The purpose is to draw student’s attention to realize the faulty sensory appreciation. Recording the playing and watching it helps the student to recognize poor habits clearly.

Before the video recording, I explained the purpose for this session. I let her know that we will watch it together to see what she actually does while playing the cello. I also assured her that no one will see this video except the two of us. I asked her to play through D major scale in three octaves, and the first movement of Romberg Sonata in E minor.

45 Conable and Conable, *How to Learn the Alexander Technique*, 51.
After finishing the video recording, I told her that we would watch it together after we worked on a few things.

**Primary Control**

I reminded her of the relationship between her neck and head. I instructed her to let the neck be free and forward and up. In order to help her understand more clearly, I showed her what is backward and down for the neck, and that forward and up is the exact opposite. She understood it better with this explanation. I put my hand on her neck, simply asking her to keep her neck free and balanced on top of her spine. Then I tried to move her head back and forth gently to see if she understood what I meant, and her response was good. I directed her to walk around the room, keeping a free neck. Randomly, I stopped her to remind her of the free neck. Next, I had her sit and read something while keeping the neck free. In the middle of a sentence, I checked her neck and found that even when her focus was on a specific task she was keeping a free neck and a more constructive relationship between the head and spine.

**Lengthening the Spine and Widening the Back**

Then I gently put my hand below her shoulder blades asking her to let her think about her back lengthening and widening. I could sense a slight release. Pointing out the back of a rib cage on the miniature skeleton, I asked her to continue to think of lengthening and widening. Then I reminded her of what we covered last week: sitting on her sit-bones straight down into the chair, her legs releasing out of the hip joints; the four arm joints releasing out of the back; both feet fully in contact with the floor, and releasing her knee and ankle joints. She responded accordingly.

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46 The purpose here is to start from an easy, everyday task. Playing the cello could be quite complicated. Walking and reading are more simple activities when working on freeing the neck.
Watching the Video: Faulty Sensory Appreciation

Preparing the video, I told Julia to watch carefully and notice poor habits of which she is unaware of when she plays the cello. We watched the video together.

My Observation

Her bow arm was straight and fluent. When she went up to the thumb position, she raised her shoulder only a little bit, and her head did not drop. Her ease around the cello had improved. Her tone was hollow. She kept the heel of her left foot up the entire time, an indication that she locked her left hip joint. Every time she made a mistake, she dropped her head towards the music. Certain problematic passages, which we had worked on many times in previous lessons, were still played with poor coordination.

Julia’s Observation

She pointed out the dropping of her head and her left foot with its raised heel. She said she felt like the cello was going to fall, if she did not put her knee up higher. This is a faulty sensory appreciation: the floor is holding the cello up, and she only needs minimum contact with her cello between her knees. There is a gap between what she feels and what actually is.

Then I asked her if she needs to drop her head towards the music in order to see the notes. And she said yes. This is another faulty sensory appreciation: she thinks she needs to drop her head towards the music in order to see the notes. But, when I asked her to keep her neck free, forward and up, and asked her if she could read the notes, she said yes. Therefore, she does not need to drop her head in order to see the notes. I explained that there is a discrepancy between what she feels and what is. She remarked that she had been more conscious of slouching around the cello.
**Inhibition**

I asked Julia not to do anything. She was sitting with the cello between her knees and bow in her hand. I asked her to simply sit there. After about thirty seconds, I asked her to respond to my step-by-step directions. I reminded her of her old habitual way of playing the cello, including squeezing the knees, locking the hip joint, tensing the neck and dropping her head, slouching around the cello. I asked her if she wanted to keep playing in that way. She said no. Then I asked her to repeat after me, “I will not react in my old habitual way!” And she did. She was aware of her old way, and she was willing to stop and follow the new directions.

I gave her directions:

- Keep the neck free, forward and up, be aware of the space above you
- Keep the back lengthened and widened, be aware of the space behind you
- Release your legs out of the hip joints.
- Keep both feet in contact with the floor, be aware of the ground beneath you
- Release your knee joints, there is no need for you to squeeze the knees to hold the cello
- Release your arms out of back, be aware of all four arm joints
- Play the piece

**Julia’s Reaction**

After playing through the piece, I asked her if it was any different or if she had any thought. She said that it had been easier to play this time. I gave her the self check-up questionnaire sheet for week 2.

**Lesson 3**

**Review from the Previous Lesson**

At the beginning of our third lesson, I gave the same directions I had the week before to remind her of several issues: that the neck should be free, forward and up; to let the back be lengthened and widened; to release the legs out of the hip joints; to place both feet on the ground,
not squeezing the knees against the cello; to release the arms out of the back; and that her body should be comfortable while playing.

I instructed her to recall aloud the poor old habits in her playing she saw on the video the week before. She mentioned that she dropped her head, that she lifted her left heel, and that she slouched her shoulders over the cello. I asked her to begin the piece, and while she played I repeated the inhibition and step-by-step direction process. During her playing, I stopped her whenever she reacted in an old habitual way, and gave her new directions to increase her awareness of it. Her old habitual force was still strong, and I had to stop her quite often.

After this process, I asked her to repeat the piece. This time, she played without the head drop, but her left foot remained up. Later, she remarked that she was aware of her raised heel, but was unable to fix it while playing. From this comment, I surmised that her old habits were still a factor but to a lesser degree, and I was pleased that she was at this point more aware of what she was doing with her body.

**The Relationship of the Arms in Connection to the Back**

I asked Natalie if she could tell me where the arm muscle starts, and she pointed to the shoulder joint. Showing her the picture of the muscular system of the upper body, I explained how the arm muscles are attached to the back muscles and the chest muscles. I said that allowing ourselves to use these big muscles results in better control of the bow arm and a better sound.

**The Emphasis on the Lower Body**

I reviewed sitting from the first lesson, reminding her that we want to let the energy flow upward and downward. I gave her similar instructions as I had before:

- Allow your sit bones to be in full contact with the chair and to be balanced
- Your legs should be released out of the hip joints
- Both feet should fully come in contact with the floor
- Accept only a minimum contact between your knees and the cello
Before instructing her to play the piece again, I reviewed several newly covered issues, including how the arm muscles are attached to the back, that the power of the arms comes from the back and there needs to be enough bow pressure without it being forced.

**Teacher Observation**

Her sound was more focused and bigger. Her shoulders were not slouched nor was her head dropped. Also, I could see improvement in her left hand agility and coordination. Although still not quite perfect, the difficult passage with which she struggled were now played with better coordination and ease. (I had not noticed this particular improvement previously.)

I asked her how she felt. She said she felt like she was not working as hard to get the bigger and more focused sound.

I instructed her to practice the entire first movement of the Romberg sonata with this kind of sound and with a forte dynamic. I gave her the self check-up questions along with the picture of the muscular system of the upper torso.

**Lesson 4**

**Review from the Previous Lesson**

I asked Julia if she remembered what we did in our lesson the previous week. She mentioned the arm muscles in relation to the back. She also told me she had looked at the self-questionnaire sheet and the picture before practicing.

**Teacher Observation**

I asked her to play C major and D major scales in three octaves. Her sound was quite hollow. I asked her to play the scales again, but to be aware of the arm muscles attached to the back, and reminded her that power comes from the back. I asked if she could play with a more focused and projected sound without forcing it. She played the scales again. This time her sound
was nicely open and focused. Ease around the cello had improved. As she went up to the thumb position, she didn’t drop her head, nor lift her left shoulder. She maintained a nicely balanced stature in the higher positions. She seemed to be aware of the force of her old habit, but her left foot was slightly raised again. I pointed this out to her.

Then, I called for her to play the first movement of the Romberg Sonata in a *forte* dynamic.

*Tone quality:* Unlike before, when she usually played with fast bow speed and not enough bow pressure, this time she achieved a more focused tone that was open and well projecting.

*Old habits/Awareness:* Her head did not drop, not even in the higher positions. Further, it looked as if she was maintaining a nicely balanced neck and head relationship. I noted that this performance was by far the best in regards to her head-drop, and for the first time, her left foot was down.

*Coordination between left and right hands:* Her coordination between the hands had improved generally, but she still struggled while playing the complicated passages. The rhythm was rushed and the shifting was rough.

*Left-hand agility:* While she was playing these difficult passages, I could see that she was tensing her fingers tightly. Though this aspect was better in comparison to the previous lesson, there remained a lack of ease in her playing. The difficult rhythm in these passages appears several times throughout the movement, and each time she failed to play the rhythm and bowing correctly.

*Effortlessness around the cello:* She did not squeeze her knees against the cello as much as before and she looked more comfortable and at a greater ease around the cello.
Sending Directions Based on the Means-Whereby Approach

We spent the rest of the lesson time working on the troublesome passage, employing the means-whereby principle. Here, I would like to point out that we had already worked on this passage before but not with means-whereby process.

First, I repeated several important directions:

- Keep the neck free, forward and up; be aware of the space above you
- Keep the back lengthened and widened; be aware of the space behind you
- Release your legs out of the hip joints
- Keep both feet in contact with the floor; be aware of the ground beneath you
- Release your knee joints; there is no need for you to squeeze the knees to hold the cello
- Release your arms out of your back; be aware of all four arm joints

Then we worked on the passage through step-by-step process in which I played first, then she repeated exactly what I played. Starting with a very simple exercise, each step became more complicated. When she was not able to play the exercise comfortably, we went back and repeated the previous step.

Rules for Exercise:
1. Repeat each step a few times (four-to-five times).
2. When the student cannot play a particular step of the exercise, go back to the previous step, and repeat a few more times to get more comfortable. Then move onto the next step.
3. After being able to play the last step comfortably, repeat, beginning a few measures before the passage to see if the student can place the newly learned step within the context.

Teacher Observation

After this process, I asked Julia to play the first page of the sonata. She was able to play the passage with better coordination and ease. I gave her the exercise sheet and asked her to work on the passages according to the steps, stating that I would carefully observe how she plays these passages next week. (I did not work on vibrato with Julia, since her vibrato was already in good
shape.) At the end of the lesson, I handed out the step-by-step exercise sheet for her to use in her practice.

Lesson 5

Review from the Previous Lesson

I asked Julia to take out the exercise sheet from the previous lesson. After we reviewed each exercise together, I asked her to play the passage as it is written on the score. She played with good coordination and cleanliness.

I reviewed with her what we had worked on in the previous four lessons and asked her some questions in order to remind her.

· Where are you? What are you doing here?
· Naming parts of the body, pointing out joints of the body
· Balanced sitting: being aware of sit bones, both feet grounded, legs releasing out of hip joints
· Sitting with the cello: keeping the free neck, back widened and lengthened, minimum contact of the knees with the cello, let arms release out of upper torso, etc.
· Recognition of old habits

After reviewing, I asked her to play the C major scale in three octaves and the first movement of Romberg’s Cello Sonata in E minor.

Scale: She had a straight and fluent bow arm, a nicely focused and much better projecting sound quality, a good sound sustained all the way to the tip of the bow, and much more solid intonation. (Her intonation was also much better even though this issue was not a focus in our lessons. Heightened awareness has effect on various aspects of cello playing.)

After her scale, I asked her if she had anything to say about it. She said, “It was easier to play, I didn’t have to force anything.”
Performance of the First Movement of Romberg Sonata in E minor

**Improvement:**

Her head did not drop during the entire play through. She had a much more accurate intonation, her phrasing was more fluent, the difficult passages were played well, and she displayed a generally greater sense of ease and effortlessness around the cello.

**Non-improvement:**

Her left foot came up in the middle of the piece. She played well only the difficult passages that we had worked on together in lessons. The others still gave her trouble.
Chapter 5: Case of Amy

Amy is a sophomore in high school who has been taking lessons from me for about three years. She has a tendency to play with an arched bow angle, from down bows to up bows and vice versa she creates an almost semi-circle. Although we had worked on this technique many times in the past, her difficulties in attaining and maintaining a straight bow, perpendicular to the strings, had continued. In the lesson if I mentioned her bow angle, she would fix it, but by the next lesson, the arch would have returned, and I would have to mention it again. Other issues of her playing are that she has a habit of nodding her head and tightening and twitching her lips. Her vibrato often gets narrow and out of control. Throughout the five consecutive lessons of this study, she played scales in two octaves and the second movement (Allegro) of Benedetto Marcello’s Cello Sonata in E minor, Op.1, No. 2. The sonata was not a new piece for Amy, as she already learned the notes and bowings before the case study started.

Lesson 1

Enhancing Self-Awareness

At the beginning of the first lesson, I asked Amy questions similar to those I used with Julia.

Me: Where are you?
Amy: I’m in a practice room.
Me: Where is the practice room?
Amy: At the Walnut Hills high school.
Me: Where is the Walnut Hills high school? Can you start from an even bigger place or space?
Amy: North America, Ohio, Cincinnati, Walnut Hills High School, Practice Room
Me: Can you repeat that information slower? And as you are doing that, can you try to picture the places in your head?

Me: What are you doing here?
Amy: I am playing the cello.
Me: Why do you take cello lessons?
Amy: I want get better at playing the cello.
Me: Why do you want to get better?
Amy: I enjoy playing and I like the sound of the cello, compared to other stringed instruments.

**Body Mapping Session**

*Arm Joints*

Having Amy stand in front of a full size mirror, so that she could see herself, I asked her to point out on her body all of the joints of the arm. She pointed to her shoulder, elbow, and wrist. I told her to think of those places as joints 2, 3, and 4, respectively, and that she had missed the first one: the joint where the collarbone connects to the upper torso. She was surprised to learn this was considered part of an arm joint. I asked her to put her right finger on this joint (joint 1), and to move her left arm up and down. With this motion, she could feel the movement in joint 1. Together, we named the joints again, 1, 2, 3, and 4.

*Nodding Joint*

I asked Amy to describe where the top of the spine meets the skull. She pointed to the base of the skull. However, I explained that we cannot actually touch this joint, but that inside the area of the head and neck is a joint called the nodding joint, which connects the spine and the skull. Also, I mentioned that it is of the upmost importance that this joint be free and not contracted.

*Hip Joint*

I asked Amy to point to her hip joint and she pointed to her side, the top of the pelvis, right below her waist. I asked her to point to it on the miniature skeleton, and this time she

\[n. 44\]

See footnote n. 44.
pointed to the hip joint correctly. There was a discrepancy in that she knew exactly where it was on the skeleton, but not in her actual body. I showed her where the hip joints were and explained that this is where her legs meet her upper torso.

*What is Releasing?*

In order to explain the kinesthetic feeling of releasing something, I gave Amy a demonstration. I had her make a tight fist, then let go. She followed easily. Then I explained what releasing means, that making a tight fist involves active and intentional “doing,” but that letting go of the tight fist involves releasing. I remarked that there is a subtle difference between doing something and letting it happen and releasing falls into the latter category.

*Balanced Sitting*

We turned our attention to the sit bones: I asked Amy to sit down and to pay special attention and consideration to the bones involved in this process. Using the skeleton as a visual aid, I explained that we should sit on our sit bones, and let them come straight down to the chair vertically. We should not squeeze our hip joints inward when we sit. Then, I asked her to place her hand under the buttocks and to feel her sit bones.

I put my hand around her neck and back. I told her to be aware of the space behind her, and I could feel a slight releasing in her ribcage. I told her to be aware of the space above her. I also told her to think about the nodding joint and that it should be well balanced on top of her spine, not scrunched.

Then, I asked her to adjust and to make sure she was actually sitting on her sit bones, mentioning that her legs should be released out of hip joints. I moved her legs gently to see if her hip joints were released, and being able to move them without much effort, I noted that this was
correct. Throughout this process, both of her feet were on the ground. I asked her how she felt, and she said it felt different and a bit strange.

_Sitting with the Cello_

I asked her to explain which part of her should hold the cello to keep it from falling, and she answered it was her knees. I explained that it is the ground that holds the cello up, and that she does not need to squeeze her knees to hold the cello. The knees should only come into minimum contact with the cello to keep it stable. I also explained that there is no one fixed posture to play the cello, but rather it should be a fluid relationship. Drawing her attention again to her sit bones, I asked her to move to the left and right, back and forth. I demonstrated as I explained. She understood what it meant and responded well. I reminded her to be aware of her neck, back, arm joints, sit bones, hip joints, knees, and both feet on the ground. Then I asked her to play both the G and D major scales in two octaves.

_Teacher Observation_

The first thing I noticed was how straight her bow was. During the lesson up to this point, I had not mentioned anything about her bow arm. Compared to her usual scratchy and rough playing, this sound was more open and projected. Her facial muscles looked comfortable, and she didn’t tighten her lips. I asked her how she felt, and she said she felt more comfortable in her playing.

Then, as she played through the second movement of the Marcello sonata, her intonation was unstable, but her coordination and tone quality were better. There were several spots that seemed uneasy for her. She did not have a straight bow the entire time, but there was improvement, and this affected her tone, which as it was in the scales, was less scratchy. I saw more composure and effortlessness around the cello in general.
I handed out the self check-up questionnaire sheet and asked her to use it before every practice session.

**Lesson 2**

**Review from the Previous Lesson**

In describing her practice she said that she used the list of questions only once or twice. I asked her if she had anything to say about her practice and she answered no.

**Recognition of the Old Habit: Video Recording**

Before the video recording, I explained the purpose for this session. I told Amy that we were using the video recording to help her become aware of exactly what she was doing when she played. Though I did not use the terminology common in the Alexander Technique, faulty sensory appreciation, I mentioned to her that poor habits would be more recognizable through this process. I also let her know that we would watch it together to attain these goals, and that no one else would see it. I asked her to play through the G major scale in two octaves and the second movement of Marcello Sonata. After finishing the video recording, I told her that we would watch it together after we worked on a few things.

**Primary Control**

I reminded Amy of the relationship between her neck and head. I instructed her to let the neck be free, forward and up. In order to help her understand more clearly, I showed her what is backward and down for the neck, and that forward and up is the opposite. I put my hand on her neck, simply asking her to keep her neck free and balanced on top of her spine. Then I tried to move her head back and forth gently to see if she understood what I meant. Her neck was tight at first, but as I continued to speak about a free neck, she eventually responded. I directed her to walk around the room while keeping this free neck. Randomly, I stopped her to remind her of it.
Most of the time when she was walking, she continued to have a tight neck. Next, I had her sit and read something while keeping the neck free. In the middle of sentence, I checked her neck. Her response was better with reading than walking.

**Lengthening the Spine and Widening the Back**

Then I gently put my hand below her shoulder blades asking her to think about her back lengthening and widening. I could sense a slight release. Pointing out the back of a rib cage on the miniature skeleton, I asked her to continue to think of lengthening and widening. Then I reminded her of what we covered last week: sitting on her sit-bones straight down into the chair, her legs releasing out of the hip joints, the arm releasing out of the back, both feet fully in contact with the floor, and releasing her knee and ankle joints. She responded accordingly.

**Watching the Video: Faulty Sensory Appreciation**

Preparing the video, I told Amy to watch carefully and notice poor habits of which she was not aware when she played the cello. We watched the video together.

*My Observation*

Her bow arm was straight. Her sound was not as scratchy as before, but her sound was still small. She constantly nodded her head almost every single beat. Whenever she felt technical difficulty, she tightened and twitched her lips. Although she has been working on this piece for more than a month, her intonation was shaky between position changes, and the rhythm was not always correct. Her vibrato was very narrow and out of control.

*Amy’s Observation*

She pointed out that she made many mistakes. I asked her to watch closely for her head and face. Then she noticed that she was constantly nodding her head and tightening her lips. I
asked her if she was aware that she did that, and she said no. I also asked if she needed to move her head or tighten her lips in order to play the cello. She answered no.

Although she was not aware of her old habits, I told her that she had been nodding her head and tightening and twitching her lips for a while. And I explained that those actions did not help her playing. Then I asked if she was willing to make changes, and she agreed to continue working towards learning to play the cello with greater ease.

**Inhibition**

I asked Amy not to do anything. She was sitting with the cello between her knees and bow in her hand. I asked her to simply sit there. After about thirty seconds, I asked her to respond to my step-by-step directions. I reminded her of her old habits when playing the cello, including moving her head constantly and tightening her lips. I asked her if she wanted to keep playing in that way. She said no. Then I asked her to repeat after me, “I will not react in my old habitual way!” And she did. She was aware of her old way, and she was willing to stop and follow the new directions.

I gave her directions:

· Keep the neck free, forward and up, be aware of the space above you
· Keep the back lengthened and widened, be aware of the space behind you
· Release your legs out of the hip joints
· Keep both feet in contact with the floor, be aware of the ground beneath you
· Release your knee joints, there is no need for you to squeeze the knees to hold the cello
· Release your arms out of back, be aware of all four arm joints
· Play the piece

**Amy’s Reaction**

After playing through the piece, I asked her if it was any different or if she had any thought. She said it felt lighter and easier to play. I gave her the self check-up questionnaire sheet for week 2.
Lesson 3

Review from the Previous Lesson

At the beginning of our third lesson, I gave her the same directions I had the week before to remind her of several issues: that the neck should be free, forward and up; to let the back be lengthened and widened; to release the legs out of the hip joints; to place both feet on the ground, not squeezing the knees against the cello; to release the arms out of the back; and that her body should be comfortable while playing. I put my hand on her neck and back while giving these directions. When I mentioned that her back should be lengthened and widened, I felt the release in her rib cage. I also noticed a difference in her breathing as well; it became slower. Compared to other students, she responded better to this direction.

I instructed her to recall aloud the poor old habits in her playing she saw on the video the week before. She mentioned moving her head constantly and tightening her lips. After letting her simply sit on a chair without doing anything for about thirty seconds, I asked to start playing the piece. While she played I repeated the inhibition and step-by-step direction process. During her playing I stopped her whenever she reacted in an old habitual way, and gave her new directions to increase her awareness of it. She still had a tendency to react in her old habitual way, but she followed the new directions well. I stopped her only three times.

After this process, I asked her to repeat the piece without me interrupting in the middle. I noted that her old habits were still a factor but to a lesser degree and that she seemed more aware of what she was doing with her body.

The Relationship of the Arms in Connection to the Back

I asked Amy if she could tell me where the arm muscle starts and she pointed to the place right above her shoulder blade. Showing her the picture of the muscular system of the upper
body, I explained how the arm muscles are attached to the back muscles and the chest muscles. I said that allowing ourselves to use these big muscles results in better control of the bow arm and a better sound.

As one of her poor habits was the constant tightening of the lips, I also showed the muscles of the face and neck. I explained that when she has tightness in her face, it affects not only the face but also the neck and other muscles.

**The Emphasis on the Lower Body**

I reviewed sitting from the first lesson, reminding her that we want to let the energy flow upward and downward. I gave her similar instructions as I had before:

- Allow your sit bones to be in full contact with the chair and to be balanced
- Your legs should be released out of the hip joints
- Both feet should fully come in contact with the floor
- Accept only a minimum contact between your knees and the cello

Before instructing her to play the piece again, I reviewed several newly covered issues, including how the arm muscles are attached to the back, that the power of the arms comes from the back and that there needs to be enough bow pressure without it being forced. I told her to imagine that she is in a big concert hall and that the sound needed carry all the way up to the last row of the hall.

**Teacher Observation**

Her sound was more open and projected, but not forced. Her left-hand agility and coordination between the hands had improved. I asked her if there was anything different in her playing. She said that she tried to be aware of her back. I could now see that even when she was playing with a bigger sound, she was no longer tightening her lips. (In previous lessons, when I wanted bigger sound, Amy would often play with a forced and scratchy sound, and that seemed
to correlate to even greater tightening of her lips.) However, whenever she had to shift, the lips did purse immediately before the shifting.

I suggested that she practice the entire second movement of the Marcello sonata with this kind of open and full sound with a forte dynamic. I gave her the self check-up questionnaire sheet along with the picture of the muscular system of the upper torso.

Lesson 4

Review from the Previous Lesson

I asked Amy if she remembered what we did in our lesson the previous week. She mentioned the arm muscles in relation to the back. Looking at the picture of the muscles of the upper body, we reviewed briefly what we had worked on in the previous lesson. (Since we needed to spend time on both her vibrato and the problematic passages, we continued without her playing through the piece.)

Vibrato

Amy’s vibrato is usually not very well controlled. She grips her left hand tightly, and the speed of the vibrato becomes unstable. Based on the following procedures, we worked on relearning the mechanics of vibrato:

- Play an open D string only with nice and solid sound
- Thinking about releasing the arms out of the back, place the left hand on the string
- With a very slow speed, start rotating the forearm
- Gradually speed up the vibrato according to the rhythm (half-note, quarter-note, eighth-note, triplet, and sixteenth-note)

She did well up through the quarter-note value, but as we moved on to the eighth notes, she started to tense up and shake her wrist again. However, she was aware this time of this tension. Then we moved back to the slower tempo and repeated the process. Although, she could not
handle the entire set of instructions at first, I reminded her that at this point, it was not the vibrato itself that was important, but that her body was reacting in the proper manner. I also repeated the directions (keeping neck free, etc.) and gradually she was able to continue a relaxed vibrato with control up through the sixteenth-note value.

**Sending Directions Based on the Means-Whereby Approach**

We spent the rest of the lesson time working on a troublesome passage, employing the means-whereby principle. (Here, I would like to point out that we had already worked on this passage before but not with the means-whereby process.) Before we started the exercise, I asked her to inhibit thinking that this passage was difficult.

First, I repeated several important directions:

- Keep the neck free, forward and up; be aware of the space above you
- Keep the back lengthened and widened; be aware of the space behind you
- Release your legs out of the hip joints
- Keep both feet in contact with the floor; be aware of the ground beneath you
- Release your knee joints; there is no need for you to squeeze the knees to hold the cello
- Release your arms out of your back; be aware of all four arm joints

Then we worked on the passage through a step-by-step process in which I played first, then she repeated exactly what I played. Starting with a very simple exercise, each step became more complicated as we added one or two elements at a time. When she was not able to play the exercise comfortably, we went back and repeated the previous step.

**Rules for Exercise:**

1. Repeat each step a few times (four-to-five times).
2. When the student cannot play a particular step of the exercise, go back to the previous step, and repeat a few more times to get more comfortable. Then move onto the next step.
3. After being able to play the last step comfortably, repeat, beginning a few measures before the passage to see if the student can place the newly learned step within the context.
Teacher Observation

After this process, I asked Amy to play through the second movement of Marcello sonata under tempo. She was able to play with better coordination and intonation.

*Tone quality:* She played with a more focused tone. While before, she had played with a fast bow speed and improper amount of bow pressure, now her bow arm was straight and fluent and the tone much better.

*Old habits/Awareness:* She was much more aware of her old habits. The tightening of her lips was less frequent. Whenever she did it, she slightly opened her mouth. Her head was not moving as much.

*Coordination between left and right hands:* She played the problematic passage with more clean shifting and improved intonation, but it still was not perfect.

*Left-hand agility:* The articulation was clearer, and her vibrato better controlled.

*Effortlessness around the cello:* She looked more comfortable around the cello in general.

I handed out the step-by-step exercise sheet for use in her practice.

Lesson 5

Review from the Previous Lesson

I asked her to review the exercise sheet from the week’s practice. She started tightening her lips around exercise # 8, but she was aware of it. The second time she played, she stopped pursing her lips. She had become much more aware of what she was doing, and was now able to direct herself rather than simply playing with her old habits.

After reviewing the difficult passage together, I asked her to play the passage as written, and it was played well and with a greater amount of ease. Then we reviewed the vibrato practice.
Reviewing what we had worked on in the previous four lessons, I asked her some questions to remind her of these issues.

· Where are you? What are you doing here?
· Naming parts of the body, pointing out joints of the body
· Balanced sitting: being aware of sit bones, both feet grounded, legs releasing out of hip joints
· Sitting with the cello: keeping the free neck, back widened and lengthened, minimum contact of the knees with the cello, let arms release out of upper torso, etc.
· Recognition of old habits

After reviewing, I asked her to play the G major scale in two octaves and the second movement of Marcello sonata. Before starting, I asked her to open her mouth once in a while in order to check that she was not biting her lips and tongue.

**Scale:** Her bow angle was straight and the arm looked good. Her sound quality was focused and well projected and the sound was sustained all the way to the tip of the bow with solid intonation.

After the scale, I asked if she had anything to say about it, and she did not.

**Performance of the Second movement of Marcello Sonata**

**Improvement:**

*Problem area*

Head: nicely balanced, without moving back and forth.

Tight lips: While she still tightened her lips occasionally, she was now aware of it clearly. As soon as she started to, she opened her mouth to let it loosen.

*Right hand:* Her bowing was straight and no longer did she exhibit the arch.

*Tone:* The tone was open and the sound nicely projected.

*Left hand:* She now played with a much more efficient and fluent left hand technique with smooth and easy shifting. Her vibrato was a bit shaky the first time (each section is repeated),
and she could not always control the speed of her vibrato, but in the second time, it was much better.

*Intonation:* While, there were several spots in which she did not achieve accurate intonation, she was able to adjust quickly when she was out of tune.

*Problematic passage:* The problematic passage was cleanly played.

*Overall:* Her coordination and ease around the cello improved.

*Non-improvement:*

While playing the piece, she was not able to control the speed of her vibrato all the time. About half of the time it did not work. The force of her old habit, the tightening and shaking, was too strong. However, as she could play with a nice vibrato frequently, I was convinced that with more time, she could overcome this problem. My assumption in this regard was reinforced by the fact that when she was employing the vibrato on one note, she could do it well. It is just in the context of playing a whole piece that she still had trouble.
Chapter 6: Case of Jason

Jason is in the fourth grade and has been taking lessons from me for a little over three years. He plays with excessive tightness in both hands, and he has complained frequently that his hands hurt after practicing the cello. Because of over gripping with his hands, the playing is quite uneasy especially in regards to coordination, shifting, intonation, and tone quality. His sound tends to be hollow and rather scratchy and his bow grip collapses often. Other physical problems include locking up his left shoulder and raising it higher than the right one. Throughout the five consecutive lessons, he will play scales in two octaves and Gabriel Marie’s *La Cinquantain* from Suzuki Cello Book Volume 3, a piece that Jason learned previous to the case study sessions.

**Lesson 1**

Enhancing Self-Awareness

At the beginning of the first lesson, I asked Jason common questions among teachers who use the Alexander Technique to help him become more aware of himself and his surroundings.

Me: Where are you?
Jason: I’m in a room.
Me: Where is the room?
Jason: At the University of Cincinnati.
Me: Where is the University of Cincinnati? Can you start from an even bigger place or space?
Jason: Milky Way, galaxy; earth, planet; North America, continent; Ohio, Cincinnati; University of Cincinnati campus; on the third floor studio. (He said these responses quickly and as if he was being quizzed.)
Me: Can you repeat that information slower? And as you are doing that, can you picture the places in your head?

Me: What are you doing here?
Jason: I’m doing a cello lesson.

Me: Why do you play the cello?
Jason: I like it. I like the sound of cello.
Me: Do you enjoy playing?
Jason: I only enjoy playing when it is in tune.
Me: What do you wish to accomplish by taking cello lessons?
Jason: When I play out of tune, I don’t like it. So I want to learn to play well.

**Body Mapping Session**

*Arm Joints*

I positioned Jason in front of a full-size mirror, so he could see himself standing. (Just by looking at him, it was obvious that he dropped his neck into the spine, slouched his shoulders, slumped his back, and locked his knees and hip joints. He kept this posture during the entire time of standing.) I asked Jason to point out on his body all of the joints of the arm. He pointed to his arm between his shoulder and elbow and gave me a confused look. I explained that a joint is the place where two bones meet together, and I told him that there are four arm joints. Then he pointed to his shoulder, elbow, and wrist. I told him to think of those places as joints 2, 3, and 4, and that he had missed the first one: the joint where the collar bone connects to the upper torso. He asked why that was part of arm joints since the arm didn’t start that far up. In order to help Jason’s understanding, I suggested that he put his right finger on his joint (joint 1), and to move his left arm up and down. With this motion, he could feel the movement in joint 1. He said, “Oh, I see what you mean.” Together, we named the joints again, 1, 2, 3, and 4.

*Nodding Joint*

I asked Jason to describe where the top of the spine meets the skull. He pointed out the base of the skull. However, I explained that we cannot actually touch this joint, but that inside the area of the head and neck is a joint called the nodding joint, which connects the spine and the skull. Also, I briefly mentioned that it is important to let this joint be free and not contracted.
**Hip Joint**

I asked Jason to point to his hip joint and he pointed to his side, the top of his pelvis, right below his waist. Then, I asked him to show me using the miniature skeleton, and he correctly pointed to it. I showed him where the hip joints were and explained that this is where his legs meet the upper body.

While working on the body mapping, it was more difficult to keep him focused. Jason had never seen the miniature skeleton before except on the internet, and he thought it was weird. Unlike the other two students, he did not seem to be too interested.

**What is Releasing?**

In order to explain the process and feeling of releasing something, I gave Jason a demonstration. I had him make a tight fist, then let go. He followed easily. Then I explained what releasing means. Making a tight fist involves active and intentional “doing,” but letting go of the tight fist involves releasing. There is a subtle difference between doing something and letting it happen and releasing falls into this latter category.

**Balanced Sitting**

Turning our attention to the sit bones, I asked Jason to sit down and pay special attention and consideration to the bones involved in this process. Using the skeleton as a visual aid, I explained that we should sit on our sit bones, and let them come straight down to the chair vertically. We should not squeeze our legs inward when we sit. Then, I asked him to place his hand under his buttocks and to feel his sit bones.

I put my hand around his neck and back. I asked him to be aware of the space behind him. I asked him to be aware of the space above him. I also told him to think about the nodding joint and that it should be well balanced on top of his spine, not scrunched.
Then, I asked him to adjust so that he is sitting on the sit bones, mentioning that his legs should be released out of hip joints. I moved his legs gently to see if his hip joints were released. I could tell they were, as I could move his legs easily. I asked him how he felt and he said he was not sure.

*Sitting with the Cello*

I asked him to explain what part of him should hold the cello from falling, and he answered that it was the end pin. I explained that it is the ground that holds the cello up and that the knees should only come into minimum contact with the cello to keep it stable. I also explained that there is no one fixed posture to play the cello, but rather, it should be a fluid relationship. Drawing his attention again to his sit bones, I asked him to move according to the direction of my hands. He seemed to understand what it meant and responded well. I reminded him to be aware of his neck, back, arm joints, sit bones, hip joints, knees, and with both feet on the ground.

Before asking him to play a scale, I asked if he felt any discomfort in his body while or after playing the cello. He said that both of his hands hurt while playing the cello, reaffirming one of his problem areas, which is excessive tension and squeezing in his hands. Then I asked him to play the C major and D major scales in two octaves.

**Playing Observation**

The first thing I noticed was the fluidity of his bow arm. Although he usually plays with straight bow, his arm is often stiff. This time, there was a certain grace to his movement—especially in the changes between up and down bowing—that I had not seen before. The tone quality was more open and projected compared to his usual sound which is a bit hollow and scratchy; there was clear improvement. I checked to see if he was squeezing the left hand too
hard by trying to move his left thumb away from the back of the fingerboard while he was playing, finding that I could easily move it away. In previous lessons, I had to really force it.

As he played through *La Cinquantain*, I noticed that he was raising his left shoulder higher than the right one, which indicated that he was locking up the joints of his left arm. I asked him to stop playing in the middle, and watch himself through the mirror, and he saw that his left shoulder was raised up higher than the right one. Overall, during this first lesson, I didn’t see quite as much improvement from Jason as I saw in the other two students, and I noted how easily distracted he was during the body mapping session. I handed out the self check-up questionnaire sheet and asked him to use it before every practice session.

**Lesson 2**

**Review from the Previous Lesson**

In describing his practice, he said that he forgot to use the list of questions before practicing. I asked him if he remembered what we did in the last week, and he said yes. I reviewed the materials from last week with him.

**Recognition of the Old Habit: Video Recording**

Before the video recording, I explained the purpose for this session. I told Jason that we were using the video recording to help him become aware of exactly what he was doing when he played. Though I did not use the terminology common in the Alexander Technique, faulty sensory appreciation, I mentioned to that poor habits would be more recognizable through this process. I also let him know that we would watch it together to attain these goals, and that no one else would see it. I asked him to play through the C major scale in two octaves and *La*...
Cinquantain. After finishing the video recording, I told him that we would watch it together after we worked on a few things.

**Primary Control**

I reminded Jason of the relationship between his neck and head. I instructed him to let the neck be free and forward and up. In order to help him understand more clearly, I showed him what is backward and down for the neck, and that forward and up is the exact opposite. He seemed to understand it better with this demonstration. I put my hand on his neck, simply asking him to keep his neck free and balanced on top of the spine. Then trying to move his head back and forth gently to see if he understood what I meant, I noticed that his neck was still tight. However, he responded as I continue to remind him of free neck.

I directed him to walk around the room, keeping a free neck. Randomly, I stopped him to remind him of the free neck. Next, I had him sit and read something while keeping the neck free. In the middle of a sentence, I checked to see if he was able to keep the free neck by gently trying to move his head back and forth. While he was focused on reading, he locked his neck quite strongly. I asked him to stop reading, and to let his neck become free, then continue reading. This scenario had to be repeated several times as his habit of tightening the neck was strong. Although he eventually responded kinesthetically, this process took longer for Jason than the other two students.

**Lengthening the Spine and Widening the Back**

Then I gently put my hand below his shoulder blades asking him to think about his back lengthening and widening. Not sensing any release from his back muscles, I pointed to the spine and rib cage on the skeleton and asked him to continue thinking of lengthening and widening.

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48 See footnote, n. 44.
I still did not feel any release. We switched places. I sat down and asked him to put both of his hands directly below my shoulder blades. I demonstrated how it feels to have a tight back compared to letting the back be lengthened and widened. When I asked him if he felt any difference, he said yes. We returned to our original positions, and I asked him to do the same thing I had done. This time, I could sense a slight release from his back muscles. I reminded him of that which we had covered the previous week: sitting on the sit-bones straight down into the chair; the legs released out of the hip joints; the four arm joints released out of the back; both feet fully in contact with the floor, and the knees and angle joints released as well. He responded accordingly.

*Special observation:* As mentioned in the first lesson, Jason has engrained habits of slouching and slumping his back both while sitting and standing, which is why I imagine this session took longer for him to grasp and to incorporate the new kinesthetic sense.

**Watching the Video: Faulty Sensory Appreciation**

Preparing the video, I told Jason to watch carefully and notice poor habits of which he is not aware when he plays the cello. We watched the video together.

*My Observation*

During the scale, his bow arm was straight and fluent. In the piece, he had both a good tempo and rhythm. The heel of his left foot was raised, an indication that he was locking his left hip joint. He played with a slumped low back. Though he started out with a good bow grip, somewhere in the middle, his bow hand collapsed and he squeezed the bow tightly. His left shoulder was raised higher than the right one from shortly after he began playing, and his shifting motion became stiff. He was squeezing both hands very tightly and the sound became increasingly scratchy.
Jason’s Observation

Jason did not notice anything wrong during the first viewing. But as we watched the performance a second time together, I asked him to pay attention to what he did with particular parts of his body: his left foot, his shoulders and his hands (especially the bow grip). He pointed out his left foot with its raised heel. I asked him why he did this, and he said he did not know, nor that had been aware of it. He also said that during his playing his left shoulder was higher than the right one, but he had not noticed this either. His response in terms of the bow grip was the same. So, I asked him to look at it closely and compare the beginning of the video and the ending. He noticed that he collapsed his bow hand and squeezed it.

I explained that what he had just seen were his old habits when playing the cello. Then I asked if he wanted to be more comfortable while playing the cello, and he said yes. Briefly, I explained that first we need to stop his old habits, and learn a new way to play the cello more comfortably. He agreed.

Inhibition

I asked Jason not to do anything. He was sitting with the cello between his knees and bow in his hand. I asked him to simply sit there. After about thirty seconds, I asked him to respond to my step-by-step directions. I reminded him of his old habitual way of playing the cello, including raising his left shoulder high, squeezing both hands tightly, lifting his left foot, locking the hip joints, and slumping his lower back. I asked him if he wanted to keep playing in that way, and he said no. Then I asked him to repeat after me, “I will not react in my old habitual way!” He did.

I gave him directions:

· Keep the neck free, forward and up, be aware of the space above you
· Keep the back lengthened and widened, be aware of the space behind you
· Release your legs out of the hip joints
· Keep both feet in contact with the floor, be aware of the ground beneath you
· Release your knee joints, there is no need for you to squeeze the knees to hold the cello
· Release your arms out of the back, be aware of all four arm joints
· Play the piece

**Jason’s Reaction**

While he was playing the piece again, I could see that he was much more aware of his old habits. Soon after he raised the left shoulder in the middle of the piece, he let his shoulder back down. When it went up again soon thereafter, again, he let it down. He checked himself in the mirror several times. While there was not much improvement in his playing, the level of his awareness was much higher. After playing through the piece for the second time, I asked him if it was any different or if he had any thought. He said he wasn’t sure. I handed out the self check-up questionnaire sheet for week 2. And this time he promised that he would review it before every practice session.

**Lesson 3**

**Review from the Previous Lesson**

At the beginning of our third lesson, I gave the same directions I had the week before to remind him of several issues: that the neck should be free, forward and up; to let the back be lengthened and widened; to release the legs out of the hip joints; to place both feet on the ground, not squeezing the knees against the cello; to release the arms out of the back; and that his body should be comfortable while playing. I put my hand on his neck and back while giving these directions.

I instructed him to recall aloud the poor old habits in his playing he saw on the video the week before. He mentioned raising his left shoulder higher and squeezing both hands. He also said that he used the self check-up questions before every practice, and he tried to remind
himself of his old habits. After letting him simply sit on a chair without doing anything for about thirty seconds, I asked to start playing the piece. While he played, I repeated the inhibition and step-by-step direction process. During his playing I stopped him whenever he reacted in an old habitual way, and gave him new directions to increase his awareness of it. This process took less time with Jason compared to the other two students, since his tendency to react in his old habitual way was not as strong.

After this process, I asked him to repeat the piece without me interrupting in the middle. Although his sound was still a bit scratchy, he played with a straight bow. Both of his shoulders looked comfortable and balanced, and his feet were fully in contact with the floor. Compared to the previous week, there was a noticeable amount of improvement in his playing overall.

The Relationship of the Arms in Connection to the Back

I asked Jason if he could tell me where the arm muscle starts and he pointed to the place right below his shoulder. Showing him the picture of the muscular system of the upper body, I explained how the arm muscles are attached to the back muscles and the chest muscles. He showed enthusiasm while looking at the picture. I said that allowing ourselves to use these big muscles results in better control of the bow arm and a better sound.

The Emphasis on the Lower Body

I reviewed sitting from the first lesson, reminding him that we want to let the energy flow upward and downward. I gave him similar instructions as I had before:

- Allow your sit bones to be in full contact with the chair and to be balanced
- Your legs should be released out of the hip joints
- Both feet should fully come in contact with the floor
- Accept only a minimum contact between your knees and the cello

Before instructing him to play the piece again, I reviewed several newly covered issues, including how the arm muscles are attached to the back, that the power of the arms comes from
the back and that there needs to be enough bow pressure without it being forced. I told him to imagine that he is in a big concert hall and that the sound needs to carry all the way up to the last row of the hall.

**Teacher Observation**

His sound was more open and focused. Instead of a scratchy sound, it had a more ringing quality. His shoulders were nicely balanced and his bow grip remained at the right angle. I asked him if there was anything different. He said he was not sure if he felt anything different but that he tried to be aware of his back.

I suggested that he practice the entire *La Cinquantain* with this kind of open and full sound with a *forte* dynamic. I gave him the self check-up questionnaire sheet along with the picture of the muscular system of the upper torso.

**Lesson 4**

**Review from the Previous Lesson**

I asked Jason if he remembered what we did in our lesson the previous week. He mentioned the arm muscles in relation to the back. He also told me he had looked at the self-questionnaire sheet and the picture before practicing. Commenting on his practice, he said his right shoulder used to hurt after practicing, but that it did not hurt this week. Looking at the picture of the muscles of the upper body, we reviewed briefly what we had worked on in the previous lesson.

**Teacher Observation**

I asked him to play the C major scale in two octaves followed by *La Cinquantain* in a *forte* dynamic.

*Tone quality:* Unlike before, his sound was open and focused.
Old habits/Awareness: He did not raise his left shoulder higher than the right one, but rather both shoulders were well balanced. His feet were properly on the ground. (After the recognition of his old habits, he did well keeping his left heel down, thus freeing the hip joints.) For the most part, he maintained a straight bow.

Left-hand agility: Although I had not mentioned anything about intonation, there was a great deal of improvement in intonation. However, his shifting motion still seemed uneasy.

Effortlessness around the cello: He looked much more comfortable with a greater sense of ease around the cello.

Sending Directions Based on the Means-Whereby

We spent the rest of the lesson time working on a troublesome passage, employing the means-whereby principle. (We had previously worked on this passage but not with means-whereby approach.)

First, I repeated several important directions:

· Keep the neck free, forward and up; be aware of the space above you
· Keep the back lengthened and widened; be aware of the space behind you
· Release your legs out of the hip joints
· Keep both feet in contact with the floor; be aware of the ground beneath you
· Release your knee joints; there is no need for you to squeeze the knees to hold the cello
· Release your arms out of your back; be aware of all four arm joints

Then we worked on the passage through a step-by-step process in which I played first, then he repeated exactly what I played. Starting with a very simple exercise, each step became more complicated. When he was not able to play the exercise comfortably, we went back and repeated the previous step. When I asked him to lighten up his left hand, his sound became lighter as well.

This response is called the bilateral transfer, in which the action of the left arm affects the right arm.⁴⁹

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Rules for Exercise:
1. Repeat each step a few times (four-to-five times).
2. When the student can’t play a particular step of the exercise, go back to the previous step, and repeat a few more times to get more comfortable. Then move onto the next step.
3. After being able to play the last step comfortably, repeat, beginning a few measures before the passage to see if the student can place the newly learned step within the context.

Teacher Observation

After this process, I asked Jason to play the entire section of *La Cinquantain* that included the problem passage. He was able to play the passage with better coordination and ease the first time, but in repeating the section, the coordination was not as good. I gave him the exercise sheet, and asked him to work on the passages according to the steps, stating that I would carefully observe how he plays these passages in our next lesson. (I did not work on vibrato with Jason, since he has not learned how to make a vibrato yet.)

Lesson 5

Review from the Previous Lesson

I asked Jason to review the exercise sheet for the difficult passage from the week’s practice. And, after going through the step-by-step process, I asked him to play the passage as written, and it was played well and with good coordination between two hands. After he played the passage, I asked him about his hands. He said that his left hand does not hurt any more, but that the right hand still hurts sometimes. Also, he mentioned that his shoulders no longer feel tired after practicing.

Reviewing what we had worked on in the previous four lessons, I asked him some questions to remind him of these issues.
·Where are you? What are you doing here?
·Naming parts of the body, pointing out joints of the body
·Balanced sitting: being aware of sit bones, both feet grounded, legs releasing out of hip joints
·Sitting with the cello: keeping the free neck, back widened and lengthened, minimum contact of the knees with the cello, let arms release out of upper torso, etc.
·Recognition of old habits

After reviewing, I asked him to play the D major scale in two octaves and *La Cinquantain*.

**Scale:** His bow angle was straight and the arm looked good. His sound quality was focused and well projected and the sound was sustained all the way to the tip of the bow with solid intonation. After the scale, I asked if he had anything to say about it, and he did not.

**Performance of Gabriel Marie’s *La Cinquantain***

**Improvement:**

*Problem area:* He did not overtly squeeze either hand and his shoulders were nicely balanced.

*Right hand:* He maintained a good bow grip throughout. The fingers did not collapse toward the little finger. The bow arm was fluent.

*Tone:* The tone was open and the sound nicely projected.

*Left hand:* His shifting was smoother and easier. His left-hand technique was more efficient and fluent.

*Intonation:* There was great deal of improvement in his intonation. Even when he was out of tune, he was able to adjust quickly.

*Problematic passage:* The problematic passage was cleanly played.

**Overall:** His coordination and ease around the cello had improved greatly.

**Non-improvement:**

There were still a few passages where he played with incorrect rhythms.
Part III: Findings

Chapter 7: Findings from Julia, Amy, and Jason

Findings from Julia’s Case

Julia demonstrated an enthusiastic attitude and showed much interest in everything we did together throughout the five lessons. She seemed to apprehend new approaches and directions quickly. But, she often felt embarrassed when she could not follow my directions. I tried to make her feel as comfortable as possible and to get her to not rely so much on her end-gaining mentality.

After she recognized the four arm joints instead of three, there were two noticeable changes; the discomfort in her shoulder disappeared, and there was a steady improvement in her bow arm and fluency. As her awareness increased, aspects of her playing that were not included in the lesson plan also improved. For example, in the third lesson, before we started working on the left-hand technique in lesson four, I saw refinement in her left-hand agility. Although we did not work on intonation directly except in the problematic passage, she played more consistently in tune, and was able to adjust quickly when she played out of tune.

In regards to tone quality, especially after learning of the relationship between the arm muscles and the back, her sound was more focused and fuller. She became aware of her old habits and was able to consciously give new directions. After seeing the video recording of herself playing, she did not slouch nor drop the head in the higher positions. But she had difficult time keeping the left foot fully in contact with the floor, a symptom of not properly releasing the left leg out of the hip joint. After lesson four, she was able to continue to play the problematic passage with good coordination and cleanness but could not apply this technique to other
passages that have similar bowings and articulations with different notes. Overall, however, she showed clear improvements in her playing with greater poise and effortlessness.

**Findings from Amy’s Case**

Amy’s problem areas included an arched bow angle, nodding of her head, tightening of her lips, and an uncontrolled vibrato. After the body mapping sessions in which she learned the four arm joints including the joint where the collarbone meets the upper torso, she showed an increased consistency in keeping a straight bow and a graceful bow arm throughout the five lessons. Also, her usual scratchy sound became more open and projecting. As she recognized her old habits, the movement of her head stopped quickly, but the pursing of her lips took more time. As we continued with exercises focusing on inhibition and new directions, she was much more aware of this tightening and it became less frequent.

Before even working on the left-hand technique, her intonation had improved. She became aware when she played out of tune and was able to adjust more quickly. As her awareness increased, so did her listening. Although when she played the exercises for vibrato and those for the problematic passages, she was successful, when she played through the piece, she could not always control her techniques. However, her improvements in the exercises suggest that with more time she would be able to accomplish these goals. By the end of the lesson five, her playing became noticeably more efficient and comfortable.

**Findings from Jason’s Case**

Jason is much younger than the other two students, and his lack of attention and focus in the beginning of the lessons was perhaps natural. His attitude did not seem to be as open as other
two students initially. However, in the course of the lessons, the improvement I saw in Jason was greater than I would have expected.

The problem areas targeted for Jason included excessive tightness in both hands, collapsing of the bow grip, and the imbalance of the shoulders with the left one raised higher than the right one. After teaching him about the four arm joints, I started to see a certain grace and fluidity in his bow arm, which he was able to maintain throughout the lessons. His new knowledge about the connection of the arm muscles to those in the back helped to alleviate his old habit of raising the left shoulder; from this point he said that his discomfort in his shoulder was gone. He was also able to let go of the unnecessary tension in his hands, which led to more efficient shifting and a nicely balanced bow grip.

Starting from the lesson three, there was a noticeable improvement in his intonation, an aspect we had not worked on up to that point. This result demonstrates the increasing of his awareness in his playing, allowing him to distinguish between what is in and out of tune and to make adjustments for the notes that are out of tune. Overall, the case study helped him achieve much more efficiency and effortlessness in his cello playing.
Conclusion

The goal of the lesson plan was to help students understand how our bodies function and to increase the students’ awareness as to what exactly they do and do not do in their playing. Throughout the five weeks of case study, I saw improvements in all three students in each problem area that I had specified, although the speed and the level of improvement differed between them. There was also significant refinement in areas not given specific focus. The majority of these improvements were steady, though there were some aspects that were not as consistent. As five weeks only marks a beginning to the time needed to fix bad habits, the amount of improvement occurring within this short time frame is encouraging. I am confident that continuing with the Alexander Technique will produce good results.

This document was practical in nature, and it showed a specific method for overcoming obstacles students often have in their cello playing. I hope there will be more practical studies in teaching music students based on the Alexander Technique in the future. Moreover, I hope this document helps to emphasize the importance for applied music teachers to become familiar and to utilize the Alexander Technique.
Bibliography

Books


Articles


**Dissertations**


Appendix A: Self Check-Up Questionnaire for Week 1

1. Where am I?
2. What am I about to do now?
3. Where is my nodding joint?
4. Where are my hip joints?
5. Am I sitting on my sit bones?
6. Where are my feet? Are they both in full contact with the floor?
7. Where are the four joints of the arm?
8. I wish to release these joints in my body.
Appendix B: Self Check-Up Questionnaire for Week 2

1. What are my old habits when I play the cello? Am I aware of them?

2. I will not do anything for one minute. (You need to pause for one minute.)

3. My neck is free, and my head is balanced forward and up. (Think about the space above you.)

4. I wish to allow my back to lengthen and widen. (Think about the space behind you.)

5. I wish to release my legs out of the hip joints. (Think about the ground underneath you.)

6. I wish to release my arms out of the back.
Appendix C: Self Check-Up Questionnaire for Week 3

1. Where are the arm muscles? How are they connected to the back?

2. My neck is free, and my head is balanced forward and up. (Think about the space above you.)

3. I wish to allow my back to lengthen and widen. (Think about the space behind you.)

4. I wish to release my legs out of the hip joints. (Think about the ground underneath you.)

5. I wish to release my arms out of the back.

6. Practice the piece with full sound with the power coming from the back muscles.
Appendix D: Exercise for Julia
Bernhard Romberg Cello Sonata Op. 38, No. 1 in E minor, I. Allegro non troppo, mm. 13–14.
Appendix E: Exercise for Amy
Benedetto Marcello Cello Sonata Op. 1, No. 2 in E minor
II. Allegro, mm. 3–4.
Appendix F: Exercise for Jason
Gabriel Marie’s *La Cinquantain*, m. 74.

Problematic Passage

1st position

3rd position

1st position

Notation:

1.

2.

3.

4.

5.

6.

7.

8.