As a singer and during the early years of my voice teaching, I never paid much attention to the lower parts of the body, the structural and muscular framework that extends beneath the lower abdominal wall. Even though I needed feet, legs, and lower torso muscles to assist my body in remaining upright, I assumed that they would provide the requisite support, because the majority of important movement was taking place above. At least the breathing movement seemed to be focused mainly in the upper torso, and wasn’t that what really mattered? It did not occur to me, nor was I taught that my inability to sense the duality of gravity and ground reaction force (GRF) in the feet, legs, and pelvis would affect overall posture and restrict movement in singing. I was the proverbial songbird perched on a branch, puffed up in the torso and precariously supported by tiny, spindly legs, feet, and toes.

It was not until I began exploring the field of bodywork that I discovered the importance of the relationship of the feet, legs, and lower torso to the overall support mechanism for singing. As a trained Alexander Technique teacher, I began applying Alexander principles to my studio teaching and paying more attention, in general, to students’ lack of awareness of the reciprocal relationship between the joints of the lower body to those of the upper body. As a result of identifying and working with problems in the lower as well as upper body, my students began to sing with more freedom and less tension. They began to learn to support their sounds with whole body awareness. However, as I continued to teach, I also looked for practical ways to address bases of support issues, especially as I began to give more workshops for singers and instrumentalists. I wanted to provide ways for nontrained Alexander teachers and singers to integrate this material into teaching and performing. Since study of the Alexander Technique had provided the earliest springboard to dissolving some of my misconceptions about the lower body, this article begins with an exploration of lower body problems through the application of Alexander Technique principles. Practical applications based on the Alexander Technique in addition to other bodywork modalities are also included.

F. M. Alexander (1869–1955), a Shakespearean actor, began developing difficulties with his voice in the late 1880s. After unsuccessful attempts to find a medical solution to his difficulties, Alexander began a nine to ten year period of self-investigation and careful observation into the causes of his problems. He discovered that within the dynamic relationship between the head, neck, and torso lay the fundamentals for physical reeducation that could bring the body into balanced alignment. The vocal problems that Alexander was experiencing as an actor were caused by postural habits that interfered with the body’s ability to fully support the voice.

In his book, The Use of the Self, Alexander described his process of observation and thinking that is the basis for his discoveries. As he observed himself reciting in front of a mirror, Alexander noticed that the tightening of his neck muscles, which caused the pulling down and back of his head, registered undue tension throughout his body as far down as his feet and toes. He stated that this tension caused him to contract his toes and pull them downward, so that his feet were overly arched, and his weight was thrown to the outside of his feet. Alexander related that the contraction of his toes began to happen while he was trying to follow his teacher’s directions to take hold of the floor with his feet. Alexander was trying to copy his teacher, and as a result developed a bad habit from a lack of understanding of basic principles that could improve his postural alignment. Without the ability to achieve freedom in head/neck relationship and ease in the feet, legs, and pelvis, there was no way that Alexander’s spine could lengthen, so that his whole body was available to support his voice as an actor. Alexander discovered that all parts of the body had to be in dynamic rela-
relationship with one another in order for the whole to function efficiently.

In addition to his discoveries about the importance of balance in the lower body to overall balance of the body, Alexander developed the concept of positions of mechanical advantage. One of these positions is referred to as "monkey," a release at the hip joints that allows the knees to move forward and away so that one experiences a widening and lengthening in the back (Figure 1A). It is a concept especially helpful with singers who tend to hyperextend the back, thereby contracting the upper torso muscles so that the pelvis becomes misaligned and the joints of the lower body locked (Figure 1B). This shortening of muscles and rigidity in the joints severely limit the movement of breathing and the ability of the singer to engage the back muscles for any kind of support. By guiding a singer into monkey, the teacher can help release tensions in the singer's jaw, tongue, lips, and upper limbs as well as open the back and coordinate the use of the back and legs. In order to move into monkey, the singer's feet should be at least shoulder width apart. The toes should point slightly outward with knees slightly bent. This position will give the singer a sense of release in the hip joints. The teacher will want to observe that the singer does not contract the toes or allow the knees to come inwards towards one another. "Knees forward and away" is a recurrent direction in Alexander Technique; it means that the knees are forward in space, away from one another and released forward and away from the hips. In addition, the teacher will want to pay attention to the integrity of the singer's upper torso as he moves into monkey. The chest should not drop forward, which encourages loss of upper torso space for breathing and a displacement of the pelvis. If a singer has difficulty moving from monkey to balanced standing (Figure 1C), the teacher may have the singer lean against the wall in such a way that the knees are slightly bent with the toes pointing slightly out. The feet should be a few inches away from the wall. The teacher should also make sure that it is the back, not the head, that remains against the wall; the singer's spine must support the head, not the wall. One must be careful when using monkey in singing to observe that the knees do not become overly bent, so that the balance of the body is moved habitually too far forward onto the balls of the feet. Movement onto the balls of the feet as well as onto the backs is not in itself bad; it becomes detrimental when one or the other becomes a habitual resting place for the singer.

Later Alexander Technique and body mapping studies with Barbara Conable continued to clarify lower body support more fully. The stacking of the ankles and knees under the hip joints produced more freedom of movement. The legs, feet, and pelvis were no longer a thin and tiny framework but were mapped as viable supporting structures with muscles surrounding them to aid them in this work. The knowledge that weight is transferred down through the hip joints into the femurs (thigh bones) through the bony structure of the lower legs into the feet aided in the achievement of more balanced standing. In addition, Conable's idea of sensing the tripod of the arches of the feet helped to sense more accurately where and how weight should be distributed through the feet. By finding the balance of the foot directly in front of the heel rather than on the heel or the ball of the foot, stability was more readily available. Many young singers want to stiffen the ankles and knees and lean backward onto the heels, which encourages the pelvis to push forward and exacerbates the lumbar curvature. Finding the neutral balance of the tripod arch and stacking of the ankle and knee joints facilitates ease in the pelvis and spine.
Breathing deepens and abdominal muscles can do the necessary work of supporting the sound.

In order to introduce the above-mentioned anatomical concepts to students, teachers will need to invest in some visual aids. Conable's book, What Every Musician Needs to Know About the Body, is an excellent source with its illustrations. Anatomical charts that depict the skeletal and muscular systems are available through Anatomical Chart Company (anatomical.com). This company also offers any number of inexpensive skeletal models that allow students a hands-on and three-dimensional visual experience of the body. The use of anatomical and visual aids combined with movement concepts facilitates a more complete learning experience for the student.

A practical solution that experimentally allows students to sense more support and balance in the feet and legs is work with a balancing board. The board can be easily assembled and merely requires the purchase of wood at a lumber/hardware store. One takes a 36" x 12" piece of wood that is an inch in thickness (edged glued shelf lumber is ideal) upon which nonslip lengths of tape are placed. Underneath the sheet of wood, at the center, one positions a 12-inch piece of 4"x 4" to create a type of seesaw (Figure 2). Working on the balancing board helps the singer to avoid the habit of stiffening the knees and balancing too far backward or forward for any length of time. Either the board will tilt to one side or the other, or the singer will fall off. By encouraging the singer on the board to stack the joints over one another in a balanced monkey, the teacher is encouraging the student to sense lower support issuing up from the feet. Work on the balancing board is especially helpful for students who habitually bring their feet off the floor, lock their knees, and shift the weight primarily to the backs of the feet. It will also help those who have problems with transferring weight consistently to one side of the body.

Width of stance is another problem that is aided by working on the balancing board. In general, students stand with feet and legs either too close together or too far apart. As children, we first learn locomotion skills by keeping a wide base of support. As we gain greater muscular control, experience, and confidence, we narrow that base of support in order to find the optimal means of achieving stability. Working on the balancing board helps to remedy stability problems and keeps the feet more aligned to the shoulder width.

Teachers can gain insight into students' balance problems also by looking at their shoes to determine wear patterns. They will need to observe the wear pattern on both shoes, because variances are often signs of weight transference issues that appear in standing. The teacher then can ask the student to walk around and to describe what he notices in stride. The teacher should have the student pay attention to where and how the feet strike the floor and should inquire if there is a pattern to the direction of the stride out through the toes.

Figure 2.

Especially helpful for students who habitually bring their feet off the floor, lock their knees, and shift the weight primarily to the backs of the feet. It will also help those who have problems with transferring weight consistently to one side of the body.

Does that pattern differ from one foot to the other? Besides bringing awareness to the feet and stride pattern for the student, this exercise provides the teacher with some very valuable information. The habit of walking, for instance, on the outside heel usually means that the student stands in a position generally tilted back with knees that habitually lock. The other pattern of leaning too far onto the instep creates habitually locked and torqued knees with undue muscle tension resulting in the thighs and hips. In both patterns, the ankle, knees, and hips are stiffened, and this rigidity results in tightening of the buttocks and abdominal wall muscles. The tendency to transfer more weight to one foot rather than the other in walking usually means that the student, in standing, repeats the same pattern.

After the walking exercise, the teacher will want to inquire into the student's awareness as he stands and sings. Initial questions can range from: do you feel all of your foot/feet contacting the floor, do your knees feel stiff or easy, are your ankles stiff or easy, is your breathing shallow or full, is your lower back tight, do your abdominal muscles feel contracted or easy? Then the teacher should ask the student to sing and inquire about
what he observes. Student and teacher can discuss any similarities or differences between standing in balance to coming into singing movement. In such a manner, the singer and teacher both begin to understand what habits emerge as the student breathes and begins to sing. Experimenting with movement that brings a student from habit into better balance is a great way for the student to identify exactly how the habit feels. Once a bad habit has been identified, a student will want to avoid repeating that pattern. The student becomes focused on the goal rather than the process that got him there in the first place. In addition, students generally want to please their teachers, and when they discover that something they are doing is not in their best interests, they will generally try to overcompensate. By encouraging the student to identify, experience, and indeed over-correct a bad habit, a teacher can thus allow the student to fully explore his range of movement and to find the balance that is best for singing.

While standing and singing, singers should enjoy the buoyancy and freedom of the feet and lower leg joints. The springy sensation from the foot to ankle to knee and up through the hips allows for good spine lengthening and engagement of the psoas muscles, abdominal muscles, and muscles of the back. This buoyancy from the floor up reinforces Newton's third motion law, which states that for every action there is an equal and opposite reaction. When the foot and floor come into contact, the force exerted on the floor by the foot must be exactly equal and opposite to the force exerted on the floor by the foot. In other words, when a singer makes contact with the floor with the whole foot, the floor will push back in a direction exactly opposite to that of the push. However, any force exerted in a plane other than that of the desired movement direction will detract from the achievement of optimal performance level. For this reason, it is important that the young singer begins to understand that the feet and legs must be in a dynamic relationship to one another and all other supporting joints of the body in order for the reaction force of the floor contact to work at the most satisfactory level for singing.

Many young singers, as they tighten the feet and legs, want to pull up on the sternum and tighten the abdominal and back muscles, especially as the voice ascends in range. Contraction of muscles can be alleviated by the application of Newton's third law and the use of monkey. Sensing the floor under the feet and pushing off of this support right up through the legs will give the singer what I call a "whoosh" upwards right through the top of the head. In Alexander Technique, this movement out of contraction is described as a release from downward pull and can assist in alleviating unwanted muscular tension. One way to teach this is to have the student inhale in monkey with arms extended upwards above the head, elbows soft, and palms facing one another. (For yoga enthusiasts, this will resemble Chair Pose.) At this point, direct the student to push down through the heels as he begins to sing and move up and out of monkey; this will help engage ground reaction force. At the same time, the arms should fluidly move out to the sides at shoulder height with palms up and end by coming to an easy resting place at the sides of the body (Figure 3). The teacher can use this movement exercise for vocalizing or working with repertoire. Teachers should be sure to direct students to remain free in the neck area and maintain width in the back, as the arms are brought into play with this exercise. This movement can be practiced without singing until better body balance is attained. The teacher can have the student inhale the breath in monkey pose and then move as he slowly exhales on /e/ or a hiss. This exercise also encourages a more relaxed intake of air and more openness in the back and rib area.

Up to this point, balance relating to the overall structure of the legs and feet has been addressed. However, another problem can occur due to tension in the foot area. Earlier in this article, Alexander described his habit of toe contraction. There is a simple, practical solution for making the student aware of this habit. For this exercise, the teacher should have the student take off his shoes and socks. At this point, the teacher can gently place both of his hands over each foot and ask the student to come over the tripod arches of the feet. The teacher can lift the student's toes one by one and lengthen and spread them to the floor. The release in the toes can be monitored throughout a song or during vocalises with the teacher stop-
ping the student each time the toes become contracted. For those teachers less agile or who do not feel comfortable with touching, a yoga stretch that is a preparation for Mountain Pose can be incorporated. Removal of the shoes and socks also will be necessary for this stretch. The teacher should direct the student into balanced standing with the feet shoulder width apart. The student then can gently lift the top of one foot, beginning at the big toe, and stretch the space between each toe before slowly placing the toes back down on the floor. Then move to the next foot and repeat the movement. (If a student has difficulty with this stretch, the teacher can suggest that he stretch the fingers of the hands at the same time.) The student can remain barefoot throughout this portion of the lesson while the teacher monitors. As soon as the toes begin to grab again, the teacher should stop the student, bring his attention to this situation, and have the student stretch the toes once again.

Although this article deals primarily with the feet and legs, it is the whole that a teacher ultimately wants to address. Alexander knew that neck ease and head balance were keys to healthy vocalism; he recognized that when this relationship was not fluid, there was tension throughout the body. Therefore, when working with the feet and legs of a student, the teacher should remind him to stay free in the neck area with the head poised on top of the weight bearing spine right between the ears. The student often will want to look down, especially if the teacher is working directly with the feet or legs. A full-length mirror can allow the student to remain more balanced as he observes, while the teacher works with the lower body.

Principles of the Alexander Technique that emphasize freedom in the neck muscles, balance of the head on the spine, monkey, and overall alignment of the body in standing are important for singers as they come into more vigorous movement in the mediums of opera, operetta, and music theater. However, the majority of singing experience for younger singers revolves around concert work. Standing in concert is a challenge for most young singers, because recital/concert work is perceived to be primarily nonmobile. For many singers, this can prove to be a deadly static situation as they lock into all the joints for fear that any extraneous movement will detract from their singing.

To assist singers with the idea that standing on stage does not mean locking the body, concepts of three-dimensional movement from Aston-Patterning can be extremely helpful. To assist singers with the idea that standing on stage does not mean locking the body, concepts of three-dimensional movement from Aston-Patterning can be extremely helpful. Unique to Aston's philosophy of movement is her belief that human movement occurs in asymmetrical and three-dimensional spirals. Instead of stressing the attainment of symmetry in the body that many body-work systems advocate, Aston stresses respecting the body's asymmetries by allowing them to flow into movement. Aston's work with three-dimensional movement is the basis for the following exercises. These exercises can help singers develop a broader range of movement possibilities in standing and work with weight transference issues.

The movements are called Modified Standing Arcing and Standing/Rocking. To begin the Modified Standing Arcing pattern, the teacher should instruct the student to transfer weight forward and backward through the ankle joint of each foot. After rolling through the foot several times, the teacher should have the student come back to balance over the tripod arch. The next movement will have the student moving the weight slightly back onto the heels. This slight flexion should bring the hips into an easy release with the pelvis tilted somewhat backward. This flexion phase resembles monkey as the student allows the knees to move forward and away while the back widens (Figure 4A). The extension phase begins as transfer of the weight moves forward onto the balls of the feet. Throughout this phase the student will need to push down through the floor with the feet to engage ground reaction force and inhale as the whole torso extends (Figure 4B). The body will lengthen nicely in this phase. After the extension phase, the student should rock back through the ankles to return to balanced standing (Figure 1C). This movement can be done to enhance breathing with the inhalation coming during the extension phase, moving back into flexion phase on the exhalation of the breath. In addition to range of movement exploration, the spine is receiving a welcome massage as unwanted tension is alleviated.

Figure 4A: Flexion

Figure 4B: Extension
In Standing/Rocking, the student will hinge through the ankle joints to create different types of movement patterns. The student begins by moving from front to back over the foot as in the Modified Standing Arcing sequence (Figure 5A). The teacher can then have the student move from side to side (Figure 5B). The student should feel the ankle joint articulating, as the knees remain easy. The third movement is to have the student move in a diagonal pattern (Figure 5C). After the third movement, the teacher and student may explore other patterns including U-shapes, spirals in clockwise and counterclockwise patterns, circles, rhomboids, and crosses. This movement work, once experienced, can be combined with singing to encourage the student to sense the variety and range of movement in the ankle joints that helps promote fluid movement while standing.

All of the movement exercises are useful for men and women, but women are faced with an additional challenge in concert in that they are expected to wear fashionable high heels. A female singer should never wear heels any higher than an inch and a half to two inches. Wearing high heels encourages overarching of the feet, contraction of the toes, and an overall stiffening of the joints of the ankles, knees, and hips. As soon as one segment of the body is displaced, there will have to be a compensation for this misalignment elsewhere. In addition, shoes that are pointed should never be worn, since this shoe type further encourages contraction of the toes. Open-toed shoes and sandals as performance footwear are usually inadvisable; rounded-toe flats and sensible heels are the best choices.

A question remains as to how teachers can incorporate movement work into lessons. Voice teachers may only have a half hour to an hour a week with a student in private session. It is important to introduce this material slowly and in small increments, always repeating the new material at the next lesson and asking for student feedback about any information that was taught and/or the use of exercises in practice sessions. The teacher will not want to proceed until satisfied that the student has intellectually and experientially processed the older material. Anatomical information and many of the movement exercises can be done in a studio class and then worked on an individual basis in the private lesson. It is important to remember that each student comes with his own set of problems, and both teacher and student must remain patient and aware of what is happening in the body. Most importantly, teachers can gain much information about a student’s body awareness by asking questions and allowing the student to process information through verbal exchange at the beginning of a lesson. The teacher may want to keep a log for each student, which includes not only a record of vocalises and literature, but also a list of movement concepts with which the teacher is working. A log allows the teacher to review what was done with a student the previous week and can serve as a guideline for the next lesson. The teacher may also suggest that the student keep a log of observations based on practice sessions and invite the student to share these. A student log can be especially helpful for those students experiencing any kind of chronic pain issues.

In writing this article, I have tried to address, from a practical standpoint, some of the challenges that singers face with regard to establishing the feet and legs as a flexible base of support for singing. Of course, I have focused on only a part of the anatomical structure that is used for the singing experience. It is not my intention to isolate the feet and legs without calling attention to whole body awareness that is the ultimate goal for each singer. However, I have drawn from my experiences as a body-worker, singer, and teacher ways in which I think singers can be helped to become more free and flexible in the lower areas of the body. The songbird can then, with full-throated tone, sing with an awareness of the full range of motion and balance available in the legs and feet while remaining beautifully poised on that tree branch.

**NOTES**

2. Ibid., 33.
4. Ibid., 102–103.


11. Ibid., 49.


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You gain nothing by imitating another. Your physical machinery will finally rebel against a foreign idea.

Maxims, Giovanni Battista Lamperti