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**A Shared Vision or More Deception**

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Sometimes change…gets right to a person’s sense of identity…a sense of self as a professional. As a result, people may feel that the intrinsic rewards that brought them to a particular line of work will be lost with the change.

– A. J. Schuler

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| *To be honest, athletes cheat and everybody knows they are cheaters. Yet, when college teachers turn a blind eye to the academic problems of meaningless majors, no one seems to get that they are cheating their students. Both the athletes and faculty members expect to be paid well, so they do whatever to ensure their reward.*  |

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OW MANY TIMES HAVE you heard a coach say, “They put their pants on the same way we do – one leg at a time.” Most people would agree that they have not seen athletes jump with both legs into their pants. The idea behind the expression is that every person has an equal chance of winning. Understandably, it may be difficult to imagine the truth of the statement since there are so many differences among athletes. There is also the desire to win-at-all-costs. Perhaps, that is why blood doping and steroids by athletes, and other performance enhancers are popular methods of cheating in sports.

Unfortunately, it is almost impossible to catch athletes using drugs or cheating in other ways. Not only is it difficult to identify erythropoietin (EPO), the newer gene-technology products, such as Dynepo (a newer form of EPO) cannot be detected. The athletes have supporters who get them the drugs to cheat. Often times, the cheaters win and walk away with a false image of being better than the non-cheaters. They are not better than the hard-training athletes who don’t dope.

This parallel in thinking sets the stage for the hard work of change? In a way, it is the same as the hard work of sports. Dopers destroy the integrity of sports in much the same way as exercise physiology educators fail to isolate the academic problems and correct them. Assessing a department’s impact on a large-scale societal issue such as poorly prepared graduates isn’t too complex or costly to do. The faculty members are major players in the failure to address the exercise science illusion of credibility. They can assess the performance of their students in the public sector, but they haven’t. Why, because it is more important for them to do their research. They have done this so well for decades that they gone undetected in their failure of integrity and responsibility to the consumers of the educational process. In many ways, it is no different from unscrupulous athletes advancing their careers by using steroids. If it isn’t an athlete trying to find a new way to beat the system, it is a college teacher looking for grant money from a performance-enhancing company.

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| *The only thing that is stopping exercise physiologists from being healthcare professionals is the litany of “if onlys” that is part of their history. If only we had started our own organization decades ago. If only we had more members in ASEP. If only we had more students, we would be more forward thinking.* |

**Deception or Truth**

As the reader knows, language can evoke an image or a picture of an idea with different meanings. “Play the game fair” evokes an image of integrity and a sense of self-respect. “An athlete is caught doping” is another image that can be linked to being banned from a sport, loss of money due to fines, loss of respect from peers, fans, and family, or even prison or probation.

As it turns out, even intelligent and thoughtful faculty members can get caught cheating their students. Imagine a student graduating with an exercise science degree calling him or herself a physical therapist. Right away you know it isn’t right. Either you have a degree in physical therapy or you don’t. If you don’t, forget about calling yourself a physical therapist. This is not to deny that a person may get away with doing so on occasion. There are numerous instances whereby a person commits fraud and gets away with it. As an example, it wasn’t too long ago in Duluth, MN a man was sentenced to prison for practicing law. He didn’t have a law degree. Make no mistake about it that is why lawyers and physical therapists have regulatory control over their professions.

In contrast, failing to get the professional education, including gestures and expressions that associate with professionalism, exercise physiologists walk around with our heads in the clouds. They act as though they are actually blind to the obvious. There is something exercise physiologists can do to catch up to those who are true professionals. They can do the obvious! “What is that?” To put it another way, if exercise physiologists are to empower their students to compete successfully with other healthcare students, then, they must get beyond their just-only research mentality. To heap irony upon irony, exercise physiology educators have for decades spent a disproportionate amount of time doing research with little to no declaration of intent to capture or mandate enthusiasm or commitment to serve the interests of students. They must tear down the wall of traditional thinking. It is not serving the students at all.

…the prophet is the visionary who imagines a desirable future and then declares it to the rest of the world.

-- Terry Pearce

*Leading Out Loud*

Now, imagine this: Many students, even after majoring in exercise physiology and graduating into the public sector, suffer from awful to meaningless jobs set in place by the resounding incompetence of the sports medicine way of thinking. Why, because students from accredited programs often end up within the same public mess created by decades of shameful acquiescence to sports medicine. It is no wonder that a different state of mind is imperative to change the social and economic conditions of the students. Put simply, the past needs to be dismantled and done away with if exercise physiologists are to ensure students of their basic rights as college graduates.

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| *Your treasure is not far away; your dream is far from impossible. Your treasure is right where you are. Your dream is right in you. You can follow your dream to new meaning, new satisfaction, and new happiness in your work and in your life.**-- Rabbi Wayne Dosick* |

**If You Think You Can!**

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| *Everything begins with belief.* ***If you think you can or can’t, you are right.*** |

You have probably heard people say things like, “I can’t do it.” Or “I’m not even going to try.” Such expressions are excellent indicators that they are not likely to be very successful. They have already limited themselves by accepting that such statements are true. Instead, why not imagine what can be? Why not use the power of the mind to influence the will to act? Of course, as the reader might expect, it takes some effort. Change isn’t easy. That is why many people look for shelter to hide, and others don’t have the backbone to change or to stay the course once something has gotten underway.

To some extent, they prefer the idea of perfection over magic. Sadly, they think: “If I don’t try, then I can’t fail.” This is one of the consequences of failing to make a decision. Perhaps, this point is best understood straight up, as stated by Michael Eisner: “What you are striving for is magic, not perfection.”

Apparently, some exercise physiologists feel paralyzed by the magnitude of the challenge to govern themselves. A colleague at a leading research institution asked the following questions: Where do the exercise physiologists begin the paradigm shift? Where do they get the money to attend more than one national meeting a year? How do non-tenured faculty members protect themselves from colleagues with tenure? Do you really think my colleagues will allow me to offer the EPC exam at my institution? It is not surprising there are questions.

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| *You can best lead when you truly understand your people, when you respond to their needs, feel their pain, and share their joy.**-- Rabbi Wayne Dosick* |

At considerable risk to themselves, the ASEP leaders act on behalf of their students’ misery and injustice. They act in response to their own needs as well. For what it is worth, the ASEP leaders didn’t question the challenges or the hard work of changing. They understood from the beginning that failure is always part of every effort. But, with a “no” from somebody or a strategy that didn’t work, they knew ASEP as a professional organization, in addition to teaching EPCs to think about their role in society, serves a variety of functions from the standpoint of the public sector. It helps screen talent and certifies that it is high quality. In the United States there is a rich ecosystem of similar professional organizations; all need to remain honest while dealing with their own set of challenges.

It isn’t an exaggeration to say that coming together is important to the professional development of exercise physiology. If this seems hard to imagine, it shouldn’t be. That is why physical therapists, nurses, and others write books on professionalism. For this reason, the ASEP organization serves recognizable and honorable purposes (i.e., to help students who want to be exercise physiologists find credible careers). There are all kinds of opportunities for entrepreneurs to develop markets in the private sector. To many ASEP observers, the emerging healthcare market is largely one of growth and opportunity.

But, first, how does exercise physiology survive the academic confusion if not corruption by outside influences? It is like many of the great healthcare professions who survive the hard work of change. For exercise physiologists, the challenge is how to conduct their academic business in the most ethical way and according to the highest standards. This means that it is simply unacceptable for those fortunate enough to work in academia to turn a deaf ear to the lack of audits and internal vigilance to deal with the lack of leadership. They can no longer turn to their comforts and superficialities. The fact is this: Nothing matters more than agreeing on ASEP definition of an exercise physiologist’s versus the sports medicine perspective, which is archaic and out of sync with the work of other healthcare professionals.

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| *A breakthrough idea seldom occurs as a “bolt out of the blue.”* ***Instead, it occurs most often through the preparation of the mind.****-- Gerald Nadler* *and Shozo Hibino* |

Understanding those who have a job are more flexible in making decisions about money than those without a job is fundamental to why they should be more helpful. And yet, they fail to show behavior that translates into caring. The message is simply this: Those with a job respond creatively to the opportunities to make more money. They care about money and status, but not about their students’ problems. When the students realize they are qualified for part-time rehabilitation jobs or fitness instructor jobs along with non-college graduates, it becomes clear that their tuition dollars were squandered by a mindless education. It is also clear that the graduation outcome is the result of unethical behavior on part of exercise physiologists who allowed if not encouraged it to happen.

If exercise physiologists accept the idea that the primary purpose of a college education is to become financially independent as an adult with an income sufficient to pay for the costs of the college experience, then it is reasonable to conclude that the college experience is hugely problematic when the degree fails to help in accessing an income to survive. Failure to recognize this point is failure in being truthful with students, yourself and with all others associated with the degree program, particularly parents of the students who often invest a large sum of money to help ensure their children will be safe and secure.

**Facing Challenges**

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| *There are significant costs to students who associate with faculty members and academic institutions that lack integrity.* |

If you find yourself bearing bad things and unjust treatment, read and think about what Matt. 5:39-41 says, “When struck on one check, they turn the other; when deprived of their coat, they offer their cloak also; when pressed into service for one mile, they go two.” Remember, it takes hard work to face the challenges of change. Hard work is at the core of uncompromising leadership. It is hard work to improve effectiveness, commitment, and performance of an organization over the years. The ASEP leaders share the view that the ASEP organization has a larger purpose than simply presenting research abstracts, though most were all laser-focused on doing research themselves. They believe that professionalism and credibility are essential to achieving their larger purpose for the organization [1-6].

The ASEP leaders believe that what is lacking is the collective will and concerted effort to transform exercise physiology thinking and get past the oppressing alliance with the past. But, they do believe it will happen and, therefore, it is just a matter of time. What is important now is finding a way to deal with the circumstances that allow conforming to their values. At various stages of the development, the organization will need to be restructured to better fit the game plan. Their purpose is to leave a legacy of a great organization dedicated to a new view of exercise physiology as a healthcare profession [1].

Clearly, the reliance on generic certifications hasn’t worked and is naïve at best [2]. By now it should be obvious that exercise physiology lags behind the established healthcare professions, especially since exercise physiologists are still at the first steps of the professionalization process. In addition to open and honest communication and continued investment in the ASEP professional infrastructure, ASEP leaders need to anticipate the long-term employment opportunities in healthcare, athletics, and sports training [3].

Exercise physiologists need a philosophy of who they are and what they do. More now than ever before, a philosophy is central to the ASEP 21st century view of exercise physiology. Only a failure of imagination has led exercise physiologists to ignore this point. There is nothing vindictive or utopian about the content of this thinking. As one colleague put it, “I want to be part of my own professional organization and not that of some a generic organization.” It is as simple as that. Every person has the right to such thinking. Moreover, exercise physiologists have the right to talk about their frustrations, feelings, hopes, and dreams.

We are constantly challenging what we do – building a culture of restless self-renewal.

-- Lou Gerstner

*Chairman and CEO, IBM Corp.*

As Leonardo Boff said, “The process of liberation brings with it a profound conflict. Having the project be clear is not enough. What is necessary is spirituality of resistance and of renewed hope….” This is a good quote because it speaks directly to the change process. Exercise physiologists may not understand it, but this chapter is about the conflicts and troublesome realities of untruths that make up the hard work of change [5].

So why is change so challenging? Are we wired in a way that keeps us from making changes? Garcia Lorca said, “Things that go away never return – everybody knows that.” So, answer this question, “Is it the fear of not having the chance to return to what is comfortable that keeps so many exercise physiologists frozen in their tracks?” Or, is it that they don’t want to complain because they aren’t willing to work to change it? If it is the latter, why not stand for something? All good investments take time to deliver the return you want. Patience is always required. Why not believe in yourself, kick back, and relax? Why not build positive and sharing relationships with other ASEP exercise physiologists? The future of exercise physiology is here. Success is about staying focused and doing the right things for the right reasons.

 From the beginning, ASEP [6] was founded to promote professionalism in exercise physiologists. That is still its purpose. The ASEP leaders recognize that the profession of exercise physiology requires a credible higher education, that it should have its own body of knowledge, that it provides an important human service, and that it has accountability through its own code of ethics. The ASEP exercise physiologists currently reflect the requirements of professionalism. Even though the organization is small, it brings visibility to exercise physiology as well as relevance to the larger society.

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| *Regardless of your talent, education, and intelligence, so the old proverb goes, they will not provide you with success.* ***Breakthrough Thinking****: Only persistence and determination are omnipotent.**-- Gerald Nadler and Shozo Hibino* |

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| *The static blueprint of the sports medicine model isn’t just outdated, it is obsolescent. It is also very likely unethical.* |

**The Old Rules**

When students graduate from college to be consumed by tuition loans and other financial responsibilities, they get the big picture. The get that exercise science is a meaningless college investment with real dollars that must be paid back [7]. You can hear them screaming, “Why did I do that? I need a job.” Finally, they get that the purpose of the college degree is to find a credible job. Profoundly uncertain about their future and tired of living at home with their parents, many graduates find themselves knocking on the doors of college once again. This time they major in physical therapy, nursing, or some other proven major that delivers on its promise of a career with a stable financial salary. After a few months into the degree program, they see the difference and the purpose behind going to college and a career option after college. It is no wonder they gradually begin to smile and relax after being deceived for so many years.

 Writing extensively on the professionalization of exercise physiology [8] has mandated a considerable amount of reading about the negative reality of **groupthink**. It is an extremely powerful technique to control people. There is little doubt that it is why many academic exercise physiologists remain locked in the inertia of their old existence. Groupthink is a kind of mindlessness whereby unanimity overrides the consideration of alternative actions. As an example, members are more likely to remain closed to new or different ideas about exercise physiology, such when faced with becoming a member of a new organization. The old rules of doing business are just that – old rules, and often, they don’t allow members to say or even think something that counters their thoughts or that might “rock the boat.”

Please appreciate that the ASEP change process values openness. The right to dissent is just that, the right to do so. All members have the right to challenge ideas. Disagreement is not a problem. Today’s thinking within ASEP is designed around the idea that effective leadership is a vital prerequisite to sustaining the transition of exercise physiology from a discipline to a profession.

***Key Point:*** Working with a higher purpose in mind keeps ideas fresh and timely.

One starting point for fresh and timely ideas is to take a serious look at the rationale for the professionalization process. As you recall, a rationale statement provides an explanation of the fundamental reasons for thinking a particular way. Part of the explanation can be understood from answering the following question. “As an exercise physiologist, are you responsible to sports medicine or are you responsible to the profession of exercise physiology?” If an exercise physiologist feels more committed to sports medicine than exercise physiology, it is reasonable to conclude that the individual is under the influence of groupthink.

Uncertainty of this kind of thinking is always limiting. It goes nowhere, leaving everyone lost for direction. To avoid continuing to work and living this way, it is the responsibility of each person to think differently, to be more flexible, more aware, and more resilient. This may not be the only way, but it is an important way to get on with the professionalization of exercise physiology. It is also an important way to help ensure that the profession not only survives but grows and prospers. Exercise physiologists are capable of dealing with change by identifying necessary action steps that are magnified when carried out in a professional organization and/or journals.

***Here Is a Thought:*** Why not lead by example? There are benefits to the profession when members are role models. Why not show empathy for the college graduates who have difficulty locating a credible job? Showing empathy should help encourage the graduates to talk more openly about an embarrassing subject – exercise science!

The truth is that the collective professionalism within exercise physiology falls short of what is needed to push the change process forwards (i.e., at least not in a reasonable time frame). Hence, students are going to continue their emotional hardship after college graduation for many years to come. College teachers should embrace the ASEP change and be passionate about what they can do to help. To do so, they will need to deal appropriately with the illusion of internal harmony. The adverse effects of mindguarding (“groupthink”) can be avoided if the teachers are aware that it exists.

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| *As long as the ASEP leadership continue to nurture “out of the box” thinking and resiliency, the new paradigm provides the backdrop against which the new exercise physiology will survive the change process.*  |

**Coming Together**

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| *A new organizational mindset is required to break from the traditional ways of thinking about human performance, exercise science, kinesiology, and sports sciences.*  |

The evolution of exercise physiology requires that exercise physiologists come together to repair the problems that associate with our lack of a vision. Before exercise physiologists can come together, they need to have a vision. The ASEP leaders created a vision of a better future. They believe it is attractive enough to justify the sacrifices and hardships the change will require. The vision provides hope and the faith that it will be attained. It is not a vision of a generic organization [9]. While the 1954 ACSM organization appeals to research, the ASEP vision appeals to values, hopes, and ideals of organization members whose support is needed.

***The ASEP Vision!*** Dare to make a difference in the face of indifference.

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| *Embracing change is the price of entry into the culture of professionalism. It is tough but it is possible to accomplish. Those who do it learn to build an enduring new view of their work and who they are.*  |

Vision is a term used to bring people together. It tells the members not only what the organization does, but why it is worthwhile to join and support it. A common mistake of some organizations is the greed and neglect displayed on behalf of the members [10]. In fact, it is clear that the leaders [11] of the *American Association of Cardiovascular and Pulmonary Rehabilitation* (AACPVR) failed the membership. Originally designed to benefit students of exercise physiology, it is now primarily a nursing organization. A dramatic, symbolic move was made by ACSM in creating an affiliate society, called the *Clinical Exercise Physiology Association* (CEPA). It is autonomous, but operates with administrative support from ACSM. CEPA, along with ACSM, is committed to the development of CEPA as an independent, self-sufficient professional organization. The primary purpose of CEPA is to advance the scientific and practical application of clinical exercise physiology for the betterment of the health, fitness, and quality of life for patients at high risk or living with a chronic disease.

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| ***A key component to all change is a vision that is compelling, lifting, and to the point.*** *The ASEP leaders believe their vision is such a vision. They believe it is rooted in the core purpose to help students, to help the profession and to help society.* |

So what is the problem? From the ASEP perspective, there are no clinical exercise physiologists. There are ASEP board certified exercise physiologists with the academic training and hands-on skills to work in clinical settings. Yet, CEPA defines a clinical exercise physiologist (CEP) as a healthcare professional who is trained to work with patients with chronic diseases where exercise training has been shown to be of therapeutic benefit, including but not limited to cardiovascular disease, pulmonary disease, and metabolic disorders.

In other words, ACSM is using CEPA to keep exercise physiologists from leaving the sports medicine organization. After all, organizations are businesses! Organizations are interested in making money, and that is the bottom line. It could be called capitalism in its purest form. Making money is not wrong in itself. It is the manner in which some organizations conduct themselves that brings up the question of ethical behavior. In general, people are honest, and most organizational leaders act in ways that are beneficial for their members. Having scruples or being scrupulous, means sometimes having doubts about doing something because it might not be right. It is an inner voice telling us when something isn't right.

This is the moment that academic exercise physiologists need to redefine and reprioritize the use of exercise as medicine to increase its impact on healthcare. Other organizations are seizing the moment to express control over exercise, to reexamine the power of exercise from the exercise physiologist’s perspective, including foreseeable income using the fee-for-service approach, or to change the mix of marketing strategies and healthcare models in response to the rising cost of traditional healthcare and the growing effectiveness of exercise as prescribed by exercise physiologists.

The future of exercise as medicine should belong to ASEP organization whose members are carefully prepared to nurture the health and well-being of clients and patients. That is why the ASEP strategy should be to develop and update every opportunity to promote EPCs as experts in the prescription of exercise to strengthen health and emotional well-being. Goals should be broad enough to assist with professional development and application. They should always be straight to the point and helpful rather than problematic or obtuse. When they are no longer useful, they should be changed and updated.

***Physical Inactivity Is a Major Health Problem:*** It contributes to obesity, coronary artery disease, diabetes mellitus, high blood pressure, cancer, depression and anxiety, arthritis and osteoporosis.

**Shared Vision**

A shared vision [12] is important to the growth of an organization. This requires agreeing on the vision statement, and embracing the tensions that fuel change and help to master the new way of thinking. After all, if a person’s thinking fails to change, then nothing has changed. Individuals must learn to think differently if they are to understand their assumptions and reasons for changing. Thinking and acting differently are not easy to learn, especially when key figures from other organizations are not interested in changing.

What is apparent is that the ASEP vision is meaningful and credible; both required collaboration among exercise physiologists. While force of any kind is obviously inappropriate, passion is everything. Behind every great organization is passion and enthusiasm. This doesn’t mean there will not be challenges, failures, and even conflicts. There will always be ups and downs with a future-oriented vision. But as long as the vision is grounded in the new organizational paradigm, the leaders will be able to harness the energy to drive the change process. It is as Margaret Mead said, but stated in a different context:

Never doubt that a small group of thoughtful and committed *[exercise physiologists]* can change the *[profession]*.

The ASEP leaders understand the immediate needs of the students and other exercise physiologists. That is why they have provided a clear direction about how the profession should grow [13]. They understand the meaning of the Chinese proverb, “When you see what is right, then have the courage to do it.” That is why the leadership has made difficult but important choices and decisions that haven’t always been easy. They realize the reality of change is to deal with the challenges, regardless of the discomfort of changing how they think and what they do.

Consider the names of three people, Cynthia Cooper of WorldCom, Coleen Rowley of the FBI, and Sherron Watkins of Enron, who were named in 2002 by *Times Magazine* as its persons of the year thanks to their courage to speak out against the misconduct and unscrupulous actions of their respective organizations [14]. As Lacayo and Ripley [15] put it, “They took huge professional and personal risks to blow the whistle on what went wrong at WorldCom, Enron, and the FBI. In doing so, they help to remind us what American courage and American values are all about.”

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| *There will always be people driven by power, politics, and greed. They are usually just around the corner from us, doing what they can to keep things as they have been. Just remember that change is ongoing. It is a constant that must become the reality of all exercise physiologists.*  |

The ASEP leaders stand firm that exercise physiologists must come together to support a share vision, the ASEP effort, its entrepreneurial thinking, and to bolster trust and passion to build the profession. The challenges are not going away. There will be individuals who are powerful and who are good at politics just around the corner doing what they can to upset and take from the organizational life of ASEP or other organizations. Just remember that change is always ongoing; a constant that is the exercise physiologist’s reality.

The power to move the world is in your subconscious mind.

-- William James

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| *You cannot kindle a fire in any other heart until it is burning in your own.**--  Ralph Waldo Emerson* |

Acting as stewards of the profession, ASEP members help to manage the process of change. They do so knowing the inherent risk and the strong competitive position of others. After all, articulating a bold new vision is not without its significant risks and challenges. Therein is the problem. The dilemma of making a fundamental shift from yesterday’s thinking to today’s thinking is not without resistance.

From a pragmatic standpoint, it is sobering to reflect on the fact that disagreement and even bitterness are always part of building a new organizational infrastructure to harness and grow a more sound professional conscience, enhance member motivation towards professionalism, and sustain a stronger long-term view of exercise as medicine. Barnet [16] says, “…difference itself induces change….”

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| *At the center of this change process is the issue of being a profession. By convention, it means regulating the educational process, forming a professional association and a code of ethics, securing credentialing, and exercising internal control of the members and their practice of [in this case] exercise physiology* [17]. |

There isn’t any question that ASEP leaders have changed the culture of exercise physiology by changing what they value. They are doing this through articles, books, professional documents, and meetings that demonstrate they are healthcare professionals and not technicians, that they are worthy of the respect, that they are members of a profession, and that, they too, deserve sufficient financial support and credibility other healthcare providers are given. In time, this new thinking will be the accepted everyday way to view exercise physiology. It will have sunk below the consciousness of most exercise physiologists and, therefore, it will be embraced by academic exercise physiologists. Together, the members have come a long way, but remember that:

Determination and perseverance move the world; thinking that someone else will do it for you is a sure way to fail.

-- Marva Collins

**References**

1. Boone, T. (2009). *The Professionalization of Exercise Physiology*. Lewiston, NY: The Edwin Mellen Press.
2. Boone, T. (2007). *Ethical Standards and Professional Credentials in the Practice of Exercise Physiology.* Lewiston, NY: The Edwin Mellen Press.
3. Boone, T. (2006). *Is Sports Nutrition for Sale?* Nova Science Publishing, Inc.
4. Boone, T. (2006). *Career Opportunities in Exercise Physiology.* Lewiston, NY: The Edwin Mellen Press.
5. Boone, T. (2005). *Exercise Physiology: Professional Issues, Organizational Concerns, and Ethical Trends.* Lewiston, NY: The Edwin Mellen Press.
6. Boone, T. (2001). *Professional Development of Exercise Physiology*.  Lewiston, NY:The Edwin Mellen Press.
7. Boone, T. (2009). Exercise Science is Not a Sound College Investment. *Professionalization of Exercise Physiologyonline*. 13:3 [Online]. http://faculty.css.edu/tboone2/asep/ExerciseScienceIsPoorCollegeInvestment.docx
8. Boone, T. (2009). Leadership: Encouraging the Change Process. *Professionalization of Exercise Physiologyonline.* 12:1 [Online]. http://faculty.css.edu/tboone2/asep/Leadership2009.pdf
9. *American College of Sports Medicine*. (2010). Contact Page. [Online]. http://www.acsm.org/
10. Boone, T. (2009). The Truth about Exercise Science Websites. *Professionalization of Exercise Physiologyonline,* 13:3 [Online]. http://faculty.css.edu/tboone2/asep/TruthAboutExerciseScience.pdf
11. *American Association of Cardiovascular and Pulmonary Rehabilitation*. (2010). Contact Page. [Online]. http://www.AACVPR.org/
12. *American Society of Exercise Physiologists.* (2010). ASEP Vision. [Online]. http://www.asep/organization
13. Boone, T. (2009). Imagining the Future of Exercise Physiology. *Professionalization of Exercise Physiology*. 11:5 [Online]. http://faculty.css.edu/tboone2/asep/ImagingTHeFutureEXERCISEphysiology.html
14. Bilimoria, D. and Godwin, L. (2005). Engaging People’s Passion. In *Leadership: Succeeding in the Private, Public, and Not-for-Profit Sectors.* (Editors: Ronald R. Sims and Scott A. Quatro). Armonk, NY: M.E. Sharpe.
15. Lacayo, R. and Ripley, A. (2002). Persons of the Year 2002. *Time* (December). [Online]. http://www.time.com/time/personoftheyear/2002/polyintro.html
16. Barnett, H. G. (1953). *Innovation: The Basis of Cultural Change*. New York, NY: McGraw-Hill.
17. Caplow, T. (1966). The Sequence of Professionalization. In *Professionalization*. Edited by H. Vollmer and D. Mills. Englewood Cliffs, NJ: Prentice Hall.