Exercise, 1983... the Possible and the Impossible – Part 2

There are, I believe, two basic problems in the field of exercise... one, most of the millions of people that are now interested in exercise simply do not understand the actually very simple cause and effect relationships that are involved in exercise... two, many people are trying to produce results that are impossible, while ignoring possible results of great value.

A third problem is related to the fact that many people are looking for a simple, step-by-step guide to success.

You will never solve this third problem, but it is possible to solve the first two problems. Reading on the subject of exercise can have an opposite effect, can produce more in the way of confusion than information. In the end, your results will largely be determined by your attitude; if you approach exercise with a logical attitude, then your results will be good... if not, your results will be poor.

Most of the ideas that are published on any subject simply are not valid, and the field of exercise is certainly no exception to this general rule. Many people seem to believe that "they" would not permit something to be published if it was not true... but in fact it is possible to publish almost anything.

I have read almost everything that I could find on the subject of exercise for a period of more than forty years, literally hundreds of books and thousands of articles, and I have reached only one firm conclusion as a result of all this reading; which is, you cannot learn much of value on the subject of exercise by reading.

This would be true even if all of the people writing on this subject were utterly sincere in their advice... it would be true because, even though they were giving you their honest opinions, it does not follow that their opinions are valid. Then, when we add the fact that most of these people are influenced by commercial interests, it should come as no surprise that the subject of exercise is now involved in enormous controversy and confusion.

Personally... I have learned that I cannot stop the controversy; and I seriously doubt that I can do much in the direction of clearing up the confusion. So, the most I can even hope to do is to start a few people in the direction of a logical approach to exercise... which, I might add, is a lot better start than I had.

Forty-odd years ago, there were very few people involved in exercise as a business; Charles Atlas and a few others managed to make a living by selling mail order courses on exercise... instructions and advice of little or no real value to anybody. But at least they were cheap. A few other people sold barbells, which did offer potential benefits of very great value; but there was very little profit in the barbell business, so even though millions of barbells were sold during the first half of this century, the overall business of exercise remained fairly small. But the second half of this century has been an entirely different matter.

Starting around 1950, the so-called "health food" business invaded the field of exercise... and things have never been the same. But I certainly do not mean to imply that things have improved; quit the contrary, the entire field of exercise has marched rapidly in the wrong direction for the last thirty years... and no end appears in sight.

Interest in exercise has certainly increased, and that much at least is good, but most of the other changes have been mistakes. Many of which mistakes I have been guilty of.

My first major mistake was the assumption that most people were capable of producing any possible degree of results. I failed to realize that a result that is easy for one person may be utterly impossible for another person.

Having seen the almost unbelievable degree of development that had been produced by some people, as a result of barbell exercises... I assumed, wrongly, that similar results could be produced by almost anybody.

Now, forty-odd years later, I clearly understand that previously mistaken impression; and I also understand why so many people are making a similar mistake now.

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Almost anybody can produce results from proper exercise that must be experienced to be believed... but a few people, those with outstanding genetic potential, are capable of producing a degree of results that is far in excess of anything the average person could ever attain.

Having been misled by fraudulent advertising into setting their personal goals far too high, impossibly high... many people eventually turn away form exercise in disgust; while many other people spend years chasing after some "secret" to success. Meanwhile overlooking the very worthwhile results they have produced.

Worse... quite a number of people eventually become involved in things that are not only worthless but are also very dangerous.

All of which common mistakes can be avoided, and should be avoided, in a very simple manner. Do not ever compare your progress, or your results, to the progress or results produced by somebody else; instead, compare yourself now to yourself at a later point in time. If you are improving at a fairly steady pace, then you are on the proper path. The mere fact that somebody else improved twice as much in the same period of time means absolutely nothing.

As it happens, my arms and lower legs respond very quickly to exercise, much more quickly than other parts of my body... as it also happens, most people seem to have an almost opposite problem, they have particular difficulty building those parts of the body.

Thus, thirty-five years ago, when I spent a few weeks training in California, a number of people who saw the response that I produced in my arms and lower legs then jumped to the false conclusion that I was aware of some training secret. Meanwhile failing to notice that the rest of my body did not respond anywhere near as well.

All of which I had absolutely nothing to do with the way I was training. I was not training my arms and lower legs in a different manner from my other body parts; my arms and lower legs grew faster only and simply because my genetic potential for growth was better in those areas.

A few months ago, in Cincinnati, I had a somewhat heated conversation with a bodybuilder on just this subject. He informed me in no uncertain terms that he was going to prove me wrong by building large, muscular lower-legs; and he said so in spite of the fact that nearly twenty years of steady training has done almost nothing for this part of his body, while he has produced very good results in most of his other body parts.

This man will never have large lower-legs, regardless of what he does; because he simply does not have the genetic potential required to build large lower-legs. But he utterly refuses to face facts.

Over ten years earlier, another man and I had a similarly heated discussion on the same subject... although, in this case, the problem area was in the arms. This man kept pointing to his lower legs, which were huge, as proof of the fact that he should be able to build big arms; and he refused to believe that he had already done everything possible in the way of increasing the size of his arms.

Another man, a man who has won a number of physique contests over a period of several years, and a man who is most famous for his outstanding lower-legs, told me that his identical-twin brother has better lower-legs than he does, in spite of the fact that his brother has never trained at all. A year or so later, when I met his brother, I asked him to show me his lower legs; which he did... and they were better.

Which is certainly not meant to give the impression that any body part should be ignored... but it does mean that the first brother actually hurt his lower-leg development by overtraining.

Some few, fortunate individuals find it easy to build all of their body parts; but such people are rare exceptions to the general rule. Then there are those few who have great difficulty building any of their body parts. The genetically fortunate and the genetically unfortunate. Most people, the vast majority of people, do not fall into either group.

Most of us fall into a much larger group of people who find it fairly easy to build some body parts, but very difficult to build others. Then, failing to understand that this situation is a natural result of genetic factors that are utterly beyond our control, we tend to blame our training program.

Which is exactly what happened in my case... with totally unexpected and rather surprising results, Nautilus Sports/ Medical Industries is a direct result of the fact that I found it very easy to build my arms and legs, but very difficult to produce an equal degree of development in other parts of my body.

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If, for example... I had been one of those few and fortunate individuals who find it easy to build all of their body parts, then Nautilus would never have happened. Because, in that case, I would almost certainly have been convinced that I already knew the secret to success. I would have been pleased with my results and thus would not have been inclined to seek a better method of exercise.

Or, if, for example... I had been one of those few but unfortunate individuals who find it very difficult to build any of their body parts, then Nautilus would never have happened. Because, in that case, I would probably have quit in disgust, wrongly convinced that exercise offered nothing of value.

But, as it happened, I fell into neither one of those groups, so Nautilus did happen.

It happened because I had experienced a very rapid rate of growth in my arms and legs, and thus I knew that it was possible to produce very worthwhile results from exercise. But it also happened because I failed to produce equally good results in other areas of my body.

So, I knew that fast results were possible, and this encouraged me to continue... but I also knew that some areas of my body did not respond as well as other areas, and this made me realize that something was wrong. At first I blamed my program of exercises, and then I tried literally dozens of different programs... I changed the order of my exercises... I changed the number of sets and repetitions... I changed the form, or style of performance... I changed the speed of movement... I changed anything and everything that I could think of. None of which changes seemed to produce much in the way of improved results.

Next, I started to change the equipment itself, and the first really serious attempt in this direction occurred in 1948, in Tulsa, Oklahoma. At that time I was living in the Tulsa YMCA, and training in a dungeon in the basement of the YMCA that passed for a gym in those days. Fancy it was not. Dirty it was. Hot it was. But in those days we had not yet become spoiled by such things as air-conditioning and clean facilities, so nobody seemed to care... or even notice.

I then was training three days a week, four hours during each workout... and I certainly do not mean four hours devoted to merely standing around the gym; I mean four hours of training, almost non-stop training. During each workout I would drink several gallons of water, and I mean GALLONS, not quarts; yet, by the end of the workout my weight would be unchanged.

Three gallons of water weighs thirty-four pounds, but if you sweat off an equal amount then the net change is zero; and kindly do not try to tell me that this is impossible until you have tried the workout that I was following at the time, while training in a temperature above 100 degrees and with a humidity of 100 percent. By the time I finished a workout the entire floor of the gym would be wet... and I don't mean damp.

I was in Tulsa for the purpose of being recruited by both sides in the then current Jewish/Arabian war... yes, they have been fighting that long. And, having little or nothing in the way of political leanings, I really did not care which side I fought for; I simply wanted to fly fighters in combat, and I didn't give the slightest thought to who was right and who was wrong. Thirty-four years later, and hopefully a bit smarter, I now have very strong political leanings... but then I didn't.

As it happened, I did not fight for either side in that particular war, but I would have if I had trusted the people who were doing the recruiting. Some of my friends of the time fought on one side, some on the other side... a few got killed, even fewer got paid.

One friend that I made in Tulsa at the time proved to be of great importance in later years; Senior Captain Percy Cunningham, of American Airlines, was also interested in "weight lifting", as we called it in those days, and he was also interested in young ladies... and, since he assumed that I was also interested in young ladies... and, since he assumed that I knew something of value on the subject of weight lifting, and, since he had an almost limitless supply of young and very attractive girls, stewardesses for his airline, it rather naturally followed that we became friends. Quid pro quo.

In retrospect, I realize that I got much the better end of the deal; since the very firm opinions that I then held on the subject of exercise left a great deal to be desired, while the girls that he knew left little if anything to be desired.

Percy also had money, since he was then earning the almost unbelievable salary of a thousand dollars a month; and he provided the funds for the materials with which I built the first Nautilus machine. Everything that has followed has been at least an indirect result of that chance friendship in Tulsa.

But the most direct cause of Nautilus was the fact that I was able to produce good results in some part of my body but could not produce equally good results in other areas.

In and of itself, that first attempt to build an improved exercise machine can only be classified as a failure... but it was a start, it started me in the direction of a logical approach to exercise.

During the next twenty years, I built literally dozens of exercise machines in my continuing efforts to improve the basic tool, the barbell... but I really did not understand the problems that I was trying to solve until 1968.

Along the way I did learn a number of things of very great value; I learned, for example, that more training is not necessarily better training. When, in 1954, I reduced my workouts from four hours to two hours I immediately started to produce a degree of results that I had previously found impossible.

Then, in 1955, when I reduced my two-hour workouts to one hour and twenty minutes, I produced a rate of growth so rapid that I could hardly believe it.

But I was still very slow to learn, because it took me another twenty-odd years to realize that even better results could be produced by reducing the amount of training even more. Now, my workouts never take more than forty minutes, and usually take less than twenty minutes.

Eventually... the possible results of exercise will be clearly established by scientific research, and it now appears that "eventually" may happen sooner than you might expect.

Of perhaps even greater importance, the impossible results of exercise also need to be established in a manner beyond reasonable dispute. Until this is done, the present controversy in the fields of exercise and diet will increase, and the confusion that now exists on these subjects will become worse.

Nautilus is now involved in several research projects in this country... and now we are on the verge of launching a massive research project in another country, on a scale that has never before been attempted. A scale that was previously impossible, for a number of reasons.

Ideally, research should involve a large number of subjects; hundreds of subjects, or thousands. In this country, today, that is probably an impossible goal; and this is true not only because of the enormous costs involved in a project of such a size, but also because it is very difficult to find subjects in this country that are truly motivated.

Nearly eight years ago, we conducted a research project at the U.S. Military Academy, West Point; our primary reason for the location being that the subjects were motivated... a secondary consideration being the fact that we could maintain strict control of the subjects, meaningful results are difficult if not impossible to produce.

But even West Point is not an ideal location for research; primarily because the subjects are simultaneously involved in so many other activities. Having given this situation a great deal of consideration, I decided several years ago that a truly large-scale project could not be conducted in a practical manner in this country; but if not, then where could it ever be done? If indeed, it could be done at all.

Now, perhaps, we have the answer. The present economic conditions in Latin America are bad, far worse than most people even suspect; even when things are relatively good, millions of people in Latin America exist at a level of poverty that must be seen to be believed, and must be experienced to be understood... believe me, people living under such conditions can be motivated, and they are available in large numbers.

A very sad situation, on a massive scale; but perhaps we can help at least a few of these people while they help us in return. We can help them to improve their living conditions, and they can help us gain the knowledge that can come only from scientific research conducted on a large scale.

A final decision concerning the location of this project has not been made... initially, I considered Brazil, probably Rio, for several reasons; because of a large population, because of the greatly varied racial mixture of available subjects, and because the expenses would be low by comparison to the costs in this country. The main problem with Rio being the distance.

I also considered San Juan, Puerto Rico... the primary advantage being the fact that this location would avoid any potential problems that might result from working in a foreign country, a secondary advantage being that the distance is not so great.

But at the moment, I believe Mexico might be the best choice, for several reasons... distance, availability of subjects, and

cost. Within the next few days I will go to Mexico for the purpose of negotiations with the Mexican government; if the required cooperation can be secured, then the project will probably be undertaken in Acapulco, starting almost immediately and extending for a period of several years.

But regardless of the location, the project will be started somewhere soon.

And just what do we want to prove? We don't want to prove anything... instead, we want to determine the facts, whatever they may turn out to be. It is hard enough to create the conditions under which truly scientific research can be conducted, and it is sometimes even harder to convince the scientific community or the public that your research is both accurate and unbiased... therefore, it is imperative that everything be done in the open, under conditions that cannot be reasonably questioned.

There will also be some unreasonable doubts, simply because we will always have a few unreasonable people... but I believe I have devised a plan whereby the doubts of reasonable people can be resolved; and, simultaneously, our present plan of action will accomplish another purpose, will spread the knowledge gained in an area of great importance, among people who are in need of such knowledge.

Medical doctors are at last becoming aware of the need for exercise as an important part of healthy living, but most doctors still have little or no personal experience with exercise, and there is really no place for them to turn for reliable information.

The real importance of exercise will be recognized when, and only when, a high percentage of medical doctors become truly knowledgeable in this field; the doctors must first educate themselves on the subject of exercise, then they can, and I believe they will, help to educate the public. In the direction of providing that much-needed education experience for doctors, our new research program, wherever it is located, will be conducted in cooperation with the medical school of a major university; in such a manner that a large number of doctors can be exposed to a fairly short but very comprehensive course in exercise physiology.

By invitation only, and at a very nominal fee, an annual of 5,200 doctors will be provided with a once-in-a-lifetime opportunity for additional education.

Every week, fifty-two times a year, a Nautilus Jumbo Jet will depart from Atlanta for a round trip to the location of our upcoming research project itself, where they can observe the ongoing research and be made aware of the procedures being used. The next four days will be devoted to a very comprehensive school that will cover all of the important areas of both exercise physiology and diet.

If this project can be continued for a period of ten years, which is our intention, then a total of more than fifty-thousand medical doctors can be provided with meaningful, practical information on the subjects of exercise and diet... hopefully, such knowledge will then be spread for the benefit of millions of other people.

And, you might ask, what's in it for me? What's in it for Nautilus? Some people will believe my answer, and some will not, but so be it; there is really nothing in it for me, personally... apart from the satisfaction that I hope to gain by perhaps solving some of the questions that still remain in my own mind. I may not even live long enough to see the project completed; but if not, then I will at least have the satisfaction of having started something of potential great value. For Nautilus, which will continue long after I'm gone, the benefits should be enormous; the value of knowledge can never be accurately determined in advance... but of this you can be sure, knowledge of any sort will eventually prove to be of tremendous value. Generally in ways that you would never have dreamed of.

Personally... I have long since given up any attempts to explain my own motivations even to myself; but I would like to call your attention to something that was written on this subject more than a century ago.

The Hunting of the Slan

I have sometimes amused myself by endeavoring to fancy what would be the fate of any individual gifted, or rather accursed, with an intellect very far superior to that of his race. Of course, he would be conscious of his superiority nor could he (if otherwise constituted as man is) help manifesting his consciousness. Thus he would make himself enemies at all points. And since his opinions and speculations would likely differ from those of all mankind – that he would be considered a madman, is evident. How horribly painful such a condition! Hell could invent no greater torture than that of being charged with abnormal weakness on account of being abnormally strong.

In like manner, nothing can be clearer than that a very generous spirit – truly feeling what all merely profess – must inevitably find itself misconceived on every direction – its motives misinterpreted. Just as extremeness of intelligence would

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be thought fatuity, so excess of chivalry could not fail of being looked upon as meanness in its last degree – and so with other virtues. This subject is a painful one indeed. That individuals have so soared above the plane of their race is scarcely to be questioned; but, in looking back through history for traces of their existence, we should pass over all biographies of "the good and the great," while we search carefully the slight records of wretches who died in prison, in Bedlam, or upon the gallows.

Edgar Allen Poe: Marginalia

(Southern Literary Messenger, June 1849)

So far, at least... I have managed to avoid both prison and the gallows, and having long since become accustomed to living in a largely mad world, I don't imagine that a madhouse such as Bedlam would be that much of a change; but perhaps there is still hope for me... I haven't died yet, either.

Human nature has not changed, as best I can determine, throughout recorded history; and I don't think it will change meaningfully in the next thousand years, if ever... but the world has changed a great deal, within a very short span of time. One result being that our present style of life is badly out of sync with a normal style of life, and this is particularly true in the areas of physical activity and nutrition, exercise and diet.

While I certainly do not claim to know all of the answers, if any of the answers... I am aware of the problems. And I am also aware that many of the answers being suggested at the moment will do more in the way of increasing the problems than they will in providing the solutions. A large part of which unhappy situation is a direct result of the motivations of some of the people now involved in the fields of exercise and diet; in plain English, many of these people are involved in outright fraud, dangerous fraud in some cases, simply foolish fraud in others.

So, you should question the motives of people, particularly when seeking their advice; and , even when their motives appear to be aboveboard, never forget that advice is really only somebody's opinion.

It is my opinion that proper exercise offers benefits of enormous value to almost everybody, but it is also my opinion that the entire field of exercise is neck deep in outright fraud and foolishness. Separating the facts from the foolishness is not always easy, but at least we are making the attempt.