

Paleo Solution 343

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Robb: Hey, folks, Robb Wolf here in another edition of the Paleo Solution Podcast. We had some major Skype connectivity issues but we managed to overcome that. Today, I have two outstanding coaches. The first is my good friend Matt Pendola, founder of Pendola Training. He is located right here in Reno, Nevada. And we also have world renowned US Olympic triathlon and coach Bobby McGee. Gentlemen, how are you doing?

Bobby: Good, thank you. Good to be on the show, thank you.

Robb: I wasn't sure if it was going to happen.

Matt: We had to steal a little bit from you there, Robb, but it's a true honor, super, super privileged to be on this show. So, thank you.

Robb: Well, it was off to a rough start. I thought I was going to have to sacrifice a chicken and pull out some entrails or something to get this thing going. But both of you guys have amazing backgrounds. That was a very paltry introduction. Bobby, let's start with you and give folks a sense of your background as both an athlete and a coach.

Bobby: Yeah. Well, I'd been in the US almost a quarter of a century and I still sort of consider myself as being an African, born and raised in South Africa. My coaching started actually before I even was a high school coach. I realized that my best subject going out of school to study at university was going to be sports but definitely not as a professional athlete. I was always thinking in lines of coaching.

So, I studied physical education and did my post grad work in that direction as well. And then my first foray into coaching was actually women's field hockey and that was the highest level of sport that I achieved myself. I played state level field hockey. And then very shortly after that I started coaching high school track and cross country and the rest, as I say, is history. I stayed in the sport through -- '92, South Africa was allowed back into the Olympics in Barcelona. I was the national marathon coach for that Olympics. And then just after 2000 I started specializing more in the area of Olympic triathlon and that's where I've been ever since.

Robb: Bobby, you have a fair amount of success there. Share some of the success you've had with that, some of your protégés in the coaching realm?

Bobby: So, I coached a couple of world champions in the running world. I also coached some age group champions in race walking. I'm very keen and partial to the very odd sport of race walking and Olympic walking. And then in 1996, an athlete that I coached, Josia Thugwane, won the gold medal in the Olympic marathon in Atlanta. I've just been back to Atlanta and we actually stayed right over the road from Centennial Square where the bombings were and I saw Santana for the first time the last time. So, some fun memories there.

And then in 2012, I was part of a team that produced the bronze medal in the women's triathlon. Since then I've been involved in USA triathlon and that just culminated in one of the women in our six-person team winning the gold medal in Rio. I guess, those are the high points. There's been some world records too, which is an area that I'm fond of because it's a lot more objective. The clock doesn't lie. And sometimes in triathlon it's very hard because it's all about tactics and that kind of thing.

There's a lot more variables to deal with so the psychology and the tactical component come into it strongly in triathlon which was not necessarily always the case in running. Sometimes you just have somebody that is so superior that they just run away with it and there's nothing as a coach that you can do with a second and third base athlete. There's no real gamesmanship that can come into play there or tactics that can stop a runaway train if they have the prerequisites.

Robb: Right, right. Oh, that's fantastic point. People oftentimes get a bit enamored with the uber elite in whatever genre we're talking about and it's oftentimes difficult to extrapolate much of what they're doing to the general population or even how that would inform our day to day training or coaching. That's a fantastic point.

Bobby: Yeah. It's so interesting. I was talking to a high level coach yesterday and we were talking about would we be as concerned about the use of PEDs, performance enhancing drugs, if it was golf or cricket or even for that matter football because they still have huge skills, tactics, game component.

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Whereas in sports like cycling and running and swimming, there's no outside intervention. There's no real tactics other than the approach of the athletes themselves. And so we pay a lot more attention to that. So that's the sad part about that sport but also sometimes you do get these outliers and until somebody comes along and is able to lift their game to meet the new standards set by the outlier it becomes quite moot actually.

Robb: Right, right. Absolutely. Well, Matt, you're a super good friend of mine. I get to train with you not as often as I like but I try to get down to Pendola Training as often as I can. You also have a really remarkable background ranging from athletics to coaching, military service. Give folks some of your background.

Matt: Yeah. I have a different story than Bobby. I did find running as sort of my way out. I did want to be a professional runner when I was in my youth. I wasn't a son of a sharecropper or daughter of coal miner or anything like that but I lived in government housing. There wasn't a lot of options. Rocky was my favorite movie growing up. I remember that scene where Rocky and Adrian are talking and he said, "Yeah, well, my dad said I didn't have much of a body so I better use my brain." And Rocky said, "Well, it's the opposite for me. I better use my body."

Growing up, when I was younger, I definitely focused on my running to sort of dig my way out of where I was. It created a lot of great opportunities for me. Eventually, there's only so much you can do with the body part but I realized that there was a lot more I could learn. And I had a fair amount of injuries when I was going through, progressing through as an athlete. I learned a lot. I was competitively running and competing when I was younger and then those injuries did take their toll and I eventually got into hotshotting and sustained even more injuries that way.

That was a great time of my life in my 20s. But, man, I was pretty banged up by the time I got done with that. So, between the competitive running and the hotshotting, I really had to learn how to take care of my body. So, I started learning a lot more about that, went through the basic stuff like NASM and performance enhancement specialist stuff. I ended up continuing through athletes performance mentorship programs with Mark Verstegen's program and really learned a lot more about what I could do with athletes.

That strength and conditioning, the nutrition, the mindset, all those things started to sort of gel together. A few years after that, that's when I actually started to pay attention to Bobby, which just talk about climbing the backs of giants. I'm just incredibly fortunate to know Bobby the way I do. I had read his Running Transformation and really started to convince myself that a lot of performance came down to that mindset.

We have athletes who have like fix versus growth mindset and how can we get them into that growth mindset? Bobby's book, Magical Running, really helped me a lot with that. A few years after that, there I was talking to Bobby on the phone. I couldn't even believe it was him. I had just happened to work with a triathlete who had made the Olympic Training Center team and he was working with Bobby and I was working with that athlete on thoracic mobility and Bobby

gave me a call about his progress. We were quickly friends after that. So, it's been amazing journey.

Robb: That's fantastic. Could you both or maybe Bobby launch in and then Matt put some thoughts behind that? I'm really interested in the fixed versus growth mindset. Because it seems like that would have applications to business and relationships and a host of different topics. Like I fiddle with that a lot trying to think about what am I doing, what's my next step, what do I want to be when I grow up? It seems like that fixed versus growth mindset would be a huge component regardless of sport or other activities. Bobby, what is that and how did that get on your radar?

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Bobby: Whether it was from a business perspective or whether it was from a cultural perspective, having grown up on the privilege side of a prejudiced society, as a South African, but that whole -- Even if you took a product. I've been looking into that lately. You look at a product and if you were really going to make a legacy product it would have to be, in my world, it would have to be sort of something to do with sports psychology because every three or four years every rule we have about exercise physiology or about exercise science is going to be thrown out the window.

Such that I don't even look at textbooks anymore as something that I would follow and you follow the much more dynamic realm of online research and stuff that's coming up very regularly. And I'm sure you know the feeling really well. The minute you finish a publication, the minute you finish some sort of product--

Robb: It's out of date.

Bobby: Exactly. It's out of date. And so that growth mindset, I like to say the last three years that I've been involved so very closely again with a single federation in a specific sport at its sharpest end. It's almost like I needed that to realize I know very little of what I'm supposed to be doing. And I think that's a good place to be. I think that you could use a fixed mindset as also a closed mindset and you could probably equate the word growth with vulnerability.

Being in that mindset, that there are no rules and, obviously, rules within sport that we abide by but at the same time there are no models. We were so fond in running days to hero worship, the [indiscernible] and the Franz Stampfl's and all these characters out of history that acted in isolation created these extensive models that covered a large part of the elite community but at the same time when you go back at it now with a hindsight of science and so on you can see how much those could have been enhanced.

And so in true philosophical terms, opportunities for growth, they start off with copying and then they start off with creating something from something that is already in existence and then there's this unique creation. I think in my world, there's very little opportunity for unique creation. It's always just a variation on a theme and if you allow yourself to be open to these insights and you can get into this growth mindset which is continual questioning of your current paradigm, I think that you live a more satisfactory life than trying to defend a fixed paradigm that has worked for you to a certain extent in the past.

Robb: I love it. I wish our political debate in this country took a bit more of that approach. Matt, you clearly put a ton of kind of mindset coaching into your day to day practice. You cover the strength element, conditioning elements, mobility, nutrition. But like a major part of your daily, weekly, monthly, quarterly interview process with your athletes involves checking in with them and establishing goals. How does this fixed versus growth mindset kind of inform what you're doing in that process?

Matt: Yeah. I really learn a lot from my athletes. I've had the privilege of coaching a couple of athletes here locally that, for example, went to the 2012 Olympic Trials, Gabby Williams in the high jump at 15 years old. She had gone six foot two and a quarter inches, setting the junior world record, and Logan Miller went in the pole vault. I really learned a lot from athletes like them, some of my All Americans that I could tell that their thinking was different.

One of the things that I picked up on really, really early was, for example, Wooden's pyramid of success. When Gabby walked in for the first time after she had torn her ACL, we talked about really living those principles and she just kind of smiled and said, "I've had that pyramid of success up on my wall since I was six." And so it really got me thinking about how I can help my other athletes have the same sort of mindset as well.

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I have to give credit where credit is due. You, Robb, have actually gone through a couple of these pages in my gym. This is with permission from Bobby. It's from his Magical Running book where I just simply took about 13 different exercises from his chapters and I just related it to multiple sports, multiple athletes that we work with and really I probably say asking Bobby a little bit more about what those principles are that he put into his book. I just learned from Bobby and I took it from there. I really give a lot of credit to Bobby on that.

Robb: Bobby, do you want to go through some of that? I actually just pulled it up. It's fairly complex. Like you have industriousness, friendship, loyalty, cooperation,

enthusiasm as a base and then it goes all the way up to competitive greatness at the top. Do you want to cover some of the high points with that? And also, how did this get on your radar originally?

Bobby: So, one of my post graduate areas was sports psychology and in that process I was involved very early with designing for the early South African teams going to the Olympics, designing some sports like templates. And my professor who wanted me to continue in the academic field of sports psychology years later contacted me and said, "You made the right decision. You went into the practical application field. Whenever you give a talk or whenever you're in front of a group of athletes that aren't the athletes that you work with on a daily basis, that which captures them most is the anecdotal references out of that world of emotion and sports psychology."

And I just find that as I've grown and as I've gotten older I actually twist anything that is influential to me in that regard and say how would that apply to high performance sport? And then the understanding that everybody who laces on a pair of running shoes or who gets on a bicycle after they've completed one session, they are all high performance athletes. They're just trying to commit to that.

I think Bob Schiller was on MPR the other day and, I think, he's 98 now or something. He's the writer of I Love Lucy. And they said, well, what has made him so successful that he's so sharp to this day? And he was saying two words and the words are "over" and "next." And he says, "Between over and next is a hammock and that hammock is called the present." Using that, all of those principles that you've just spoken about, whether we're starting at that very basic levels of those ten precepts of visualization, how are those applied, and then bringing those back down to the individual athlete and just realizing that the difference between dysfunction and performance is when one of those are a pathologic issue.

In other words, somebody has an obsessive compulsive disorder or something like that that's limiting them from their normal access. And then, thereafter, like -- Sports psychology used to have a really, really bad name in the '70s and prior to that because it meant you went to a sports psychologist when you were under performing and when you were blowing it or you didn't have big game temperament and so on and so forth. To the point now where it's all an add-on.

The thing that I like about Matt's approach is that he wanted to make it available on a broader front and he also wanted to turn it into a model but he always have the mindset that even if it isn't a model, which was my first attempt in Magical Running was to create a model, but even from that point forward realizing that sometimes in the heat of battle, it's an Olympic games or it's a world

championship or something, you'd really have to stretch your thinking, but generally not. Generally, it would be returning to fundamentals.

Those things that I mentioned and written up there's so much similarities between. It doesn't matter if you're looking at Rob Nideffer's work or if you're looking at Jim Lewis' work or you're looking at any of the great sports psychologist, they are these fundamentals. And so if you could encapsulate that in the moment, in the heat of battle, it is -- What is the mindset? What are the principles that the athlete brings to bear when they are performing at their best in training? And what is the internal dialogue that goes hand in hand with that?

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Versus what does the coach know about the internal dialogue of the athlete as they are walking to the start line, who was there approaching the final match? That's the part that we can't control and that's where this whole Aristotle concept of 'life is not a series of actions, it is a series of habits.' Getting to that point where the pressures are fatigue or the pressures of performance anxiety are such that people lose access to this dialogue of excellence.

If you go back into your world or you're thinking people can understand everything that they need to understand about a process and the components of that process but they have no access to that process late at night or when they are under pressure and they then go to another thought process where they're making decisions based on psycho-emotional components that they are not prepared for and that they are wholly unconscious to and then they make these bad decisions.

Robb: As you're talking, I'm thinking about some pretty big name people in the world that tried to go out and deconstruct top level performance in folks, coaches, heads of business, heads of state, and part of, I think, what's been suggested at times is that there are these habits or mindset or rules that these folks employ and that there might be some way to hack, which I hate the term hack, it just absolutely kills me and that gives me a little bit of orientation on my bias here, but I've always had this sense that there wasn't really a hack to success.

Like what you're describing here, particularly the mindset, this is something that needs to be trained. There's kind of a deep mastery on it. Some people have maybe some genetic tendencies either success or not successfully and this family or origin can support or undermine. But what do both of you think about that? Is there a hack or a shortcut to success? Or is this something that needs to be trained like a Japanese zen archery you need to chip away at it day in and day out?

Bobby: I think that between the last two components that we spoke about, there lies the answer. One is, I agree, there is some predisposition especially in the world of genetics and in the world of anthropometry, in my world. In other words, you've got to be both within a series of parameters and you have to have a certain series of -- You have to be within a certain range of capacities to be able to achieve to this level.

But hacking that mindset, I think it's a question of what are the behaviors -- and they might be extremely individualized but I don't think so -- what are the behaviors that allow people in the heat of competition or in a heat of a pressured situation, whether they'd be in business or whatever, allow them to automatically select the pathway that has the long term view and has the best interest in a more universal global fashion of that individual at heart?

So, in other words, it's more a question, I think you can learn these pathways and you can learn the components of the pathways. I'm just trying to think of the author now but we're talking about accessing the zone that Mihaly Csikszentmihalyi came up with when he wrote that seminal book called Flow in terms of how do athletes get into flow and his final result was its happenstance. You're just lucky enough. Some people get into it easier than others. To this new look at in The Rise of Superman where there are certain mindsets that tend to most commonly lead to being able to achieve this flow state.

So, in other words, the flow state itself is the one that taps into the ultimate capability of that individual. But accessing that flow state or hacking, if you will, might require a fake until you make it kind of approach where you have these series of steps of these series of mindsets that you have some ability to get into and then that mechanism switches on. I mean, I love that little piece of research that says -- A bunch of psychologists got together and they looked at -- what's the great term?

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Life skill teacher, Tony Robbins. And they had a look at a bunch of Tony Robbins' principles and they applied research models to those principles. And they themselves were very surprised at the huge amount of veracity that they got from research models when you apply these precepts that he's become so successful for teaching and that he has discovered himself. In One Hundred Years of Solitude, Gabriel Garcia Marquez kind of way is it can be multiple individuals or multiple gurus, if you were, that are working on the same principle and I don't think these principles are primary. I think they are principles about how to access that which is primary.

I think that's what teaching is about. That's what education is about. Not the thing but accessing the thing. I think if you look at kids' mathematics, for example. There's this click point. It's like a portal that opens and then the youngster can do mathematics or they can't do it at all. So, it's not the ability to do mathematics. It's how we govern this management of these various portals and maybe those portals are hackable through certain behaviors.

Robb: Got you. Got you. Matt, how have you helped your athletes if they're doing reasonably well in these areas but they need to tighten up certain elements of this success pyramid? Because, I mean, there's a lot of different factors like how do you kind of differential diagnose where the person is in this story? And I will put a link to this pyramid in the show notes so that people can look at that. But do you have kind of a differential diagnosis process so that you could delineate? And I guess some of the physical stuff is a little bit more quantifiable. But what's the differential diagnosis for you when you're working with somebody and you're trying to figure out how to bring up lagging elements of this success pyramid?

Matt: Yeah. I mean, that's a great question. On Bobby's point, I kind of think of it like when I first started working as a strength coach with these kids, and I do coach a lot of youth which I absolutely love. I feel like it's the greatest honor in getting that privilege to be able to do that. But if I'm looking at somebody with, let's say, bring it back to the mechanics, if they have a tissue that's stuck or creeped up, I say, "Okay, we're going to decompress that area."

Well, that's going to work great for that kid. But if I have every kid doing it, well, they're wasting their time on that one modality where really if it's a loss of thoracic mobility that they really need to concentrate on, then that's really what they should be spending their 15 minutes on movement improvement doing. Mindset, to me, is no different. When we talk about these things, some kids are going to respond a little bit differently to the same conversation when it comes to industriousness, for example.

And so, what we see a lot of times, kind of bringing it back to the very basics like Bobby was talking about -- I mean, your girls Sagan and Zoe, and my daughter Mia are perfect examples. You give them a puzzle and they've done the puzzle ten times. They know how to put that puzzle together. And then you give them a more complex puzzle. What we want to see is that the kids aren't afraid to fail and that they're willing to work on that new puzzle even though they might not get all the pieces together their first try.

And so what I try to look at with my kids when I'm talking about this individually with them -- So, it's both like in a group conversation but also on an individual lesson level. I'll meet with them privately to talk about how they can address

their fears of failure. And everybody is a little bit different that way. But I think, believing to achieve some kids, yes, are going to trust their training more. So, when they step on that line, they say, "Okay, I've done the work. I can do this."

Other kids, it's going to be an affirmation that really gets them through that middle section of the race. So, really discovering what makes that kid tick and what they're really afraid of, what is the fear? Because a lot of times they're so afraid of failing that they just keep repeating the same performance. And so as a strength coach, I realized at some point that I can get somebody's dead lift up to twice their body weight but it doesn't mean that they're going to be -- That doesn't equate to better performances necessarily.

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That's where we start looking in on, well, what's your self talk during this hardest section of your performance? That's the nitty-gritty of it. That's what we get down to. So, it really is an individual answer at that point and that's what I also find so rewarding and fascinating that every kid ticks a little bit differently but, man, when we figure out how to get those pieces in that puzzle together, it not only gives them better race performances but I really feel like it's preparing them for life.

And so we see these kids move on to greater things. Very few of them are going to get to the Olympic level in competition or even division I level in college or something but all of them come through not just faster, stronger but just better people. And that's what I love about that process.

Robb: That's fantastic. Bobby, I'm not sure if this quote or this concept was from a previous conversation with you but it's something to the effect -- and I'm actually wondering if it's one of your countrymen Tim Noakes that maybe said this -- but something to the effect that more athletes' careers are ruined by the drive home. And this seems to really apply to the United States.

I want to talk a little bit about like the helicopter parenting and the post game recap that many parents end up doing, something that you said Mad About Kids reenacting kind of a failing kind of methodology. But it's something to the effect, basically, that the drive home is where most athletes are destroyed. Basically, the parents over analyzing the process. And this really seems to be endemic in the US and not such a big thing elsewhere in the world. Could you, guys, maybe comment on that a bit?

Bobby: Robb, that's a fascinating thing. No, I don't think it was Tim. It was quite a recent conversation. Again, I think I picked it up from the old ubiquitous NPR. During this Olympic period, kids were asking about the influence of their parents on

their careers. And it would seem there was this trend where parents were very supportive but largely uninvolved and definitely detached from the athletes' performance and that this very damaging concept that a number of athletes created a trend with was the questions that they get asked about, was it good, was it not good, questions about performance rather than questions about enjoyment and participation.

My six-year old already has it down. It doesn't matter what she goes out and does, I say, "What are the four rules?" And she says, "Do they have to be in order, Daddy?" and I'm saying, "Yes, they have to be in order." And the order is have fun, work hard, score and defend. Those are the four rules of sports. So, I think, what it comes down to is this conversation of gray where we all tend to be so polarized whether we're coaches or whether we're parents or whether we're experts in any field, people are always coming to us and they're asking for the black or they're asking for the white. And your answer always has to be the gray, if you're being honest.

So, it's so easy with the youngster who's growing up and showing these massive progressions, so-called progression rites that they have where, basically, a good coach like Matt would be saying, "Okay, wait a minute. Let's establish true zero. Let's find out where our start point would be." And anything before true zero is considered facilitation and anything past true zero would be called progression. And so doing a lot of hard work, deciding where true zero is, so that the impact of what you're prescribing and the impact of your process is far more objectively quantified.

I like that whole concept of what Matt says. What we are creating mostly with our athletes is a sense of who they are and trying to align who they are up with the reality of who they're being seen to be. I ask this question of an athlete eventually within the first six months of their relationship with me. Consider that in this particular domain, whether that's strength or whether that's power, whether that's endurance or whether that's being a good racer, or any of those, consider that who you are is the sum of what is being observed about how you do those things. Not the sum of what you think or how you interpret what you have done.

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So, your interpretation of your performance is irrelevant when compared to the interpretation of your performance by true objective experts who see you within that domain. An athlete that comes in there and says, "I know what I need." No, not really. If they're not succeeding and they know what they need, they need to basically open themselves up to, say, "Well, what do you think I need?" And then

invariably the answer of the great athlete would be, "Wow, I have to do that and I never knew that. How would I do that?"

Robb: Fascinating. Matt, any thoughts around that?

Matt: Yeah. I mean, I just think that Bobby's obviously brought on a few very good points when it comes to these athletes just being afraid of failure. Drawing back to your point about the best athletes being ruined on the ride home, what are they afraid of? Are they afraid of disappointing their parents, their coaches? And I've actually surveyed my athletes on that subject. I was quite surprised to find out a lot of athletes were afraid of disappointing me.

And that really brought it to home for me. It wasn't just about the parents even. It was also, it came down to me, what interpretation was I giving them? So, when I'm super, super excited about how they've raced, how is that affecting their next race? Do they feel even more pressured the next time because I was so excited about their last performance and they want to be able to do that for me again instead of doing it for themselves?

And so I've learned to be a little bit more careful with my coaching and even just my personality and the way that I bring that across to them. And I do have a thought on the moral compass. When Bobby and I were talking the other day, we had a really nice conversation about moral compass. I feel like yourself, Robb, and Bobby and I, we all have become quick friends and, I think, that that is a big component there when you're talking about what makes better athletes and it's better people. And who are we as coaches?

Example, are we walking the walk? So, not to divert too far from the original point but, I think, it's important thing to talk about. If I talk about eating clean and, of course, Paleo solution is what I do. You know that. And I'm talking to my athletes about the fact that I'm getting up in the morning and taking a cold shower to start my day, I'm not doing it just one day out of the week. I'm doing it every day. And when I talk about eating clean, eating Paleo, I'm doing it every day.

My athletes see that and they know that. When it comes to Bobby and I, I think there's a few things there. When we talk to our athletes, they know that it's coming from a genuine source that we've also made those sacrifices or that we really believe in who we say we are. So, it could be something as simple as texting and driving or drinking and driving, for that matter. Those are things that I'm always preaching to my kids about. You can imagine if I ever got stopped for one of those things, we'd lose a lot of faith in the program because it really comes down to, morally, do I really believe what I'm saying?

And when I'm super, super busy and I've got ten texts to return, am I going to pull over and return those texts or am I going to do something that's wrong? Or on a weekend when we're out and we're having a good time, like everybody needs to have and have fun, are we going to have that one too many drinks and then decide we're going to drive home? The answer, obviously, is no and, I think, that that's super important. I think that our athletes buy into us more because we're really living what we say we live. We are who we say we are.

Robb: Guys, what about on the more -- We've done a lot of mindset stuff, which I wasn't even anticipating that.

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I was actually thinking that we were going to head more kind of mechanistic. We'll do a little bit more mechanistic discussion. Bobby, how has your training approach modified over, say, like the last ten or 15 years with regards to volume, intensity, peripheral strength and conditioning work and then also nutritional approaches?

Bobby: Well, I think, as a global overall, I think the one thing that has changed the most for me is less dogmatic. A lot of dogma has gone out the window but, hopefully, not the basic tenets and the principles. So just recently, I was at the USA triathlon Art & Science biannual symposium and there were a number of speakers that spoke in a fascinating fashion about modern concepts.

So, if you're looking at something like strength and conditioning within the endurance world, the whole idea of taking an athlete from muscle endurance to strength and then to power, seeing how the muscle endurance is now completely fallen by the wayside, you might have a little period of neuromuscular facilitation, as it were, and then going straight to the strength. And the only reason why you're even bothering with the strength is because you need to get to the power.

And seeing how even in a pure endurance model, 100% endurance model for events exceeding well over an hour is that up to a third of the endurance work being very effectively from a performance standpoint being replaced with power work. That, to me, is something you've always known, you've seen these studies with the runners introduce plyometrics but the study is always loath to let go of some the endurance. Now, the studies are almost categorically showing that, sure, let go of it up to a third of the endurance.

Even an older school but progressive coach is going, "Look, I'm going to give up 15%, 20% of my endurance work and looking at it in a very direct model." So, in other words, instead of -- Let's say, you're working with a 10,000-meter athlete

or a 10k athlete, 6.2 miles, that you'd think, okay, with the power work you're going to improve this athlete's mile, you're going to improve this athlete's half mile but the research is showing clearly, no, wait a minute, this athlete's 10-mile, this athlete is half marathon, this athlete is marathon. It's showing significant impact from a decrease in generalized endurance work.

I'm not talking about specific endurance. Generalized endurance work. And replacing that with that power. Not strength, not with muscle endurance but with pure power. Yeah, very definitely my approach has changed from an old school numbers model where you're looking at almost all of your approach being very directly associated with the demands of competition where my approach now is in the late phase of training I'm paying attention to the actual neuromuscular demands of that event.

But in all of that period before, I'm looking for two things. I'm looking for consistency, which means I'm keeping the athlete healthy. So, I'm doing the least amount of work I can possibly do but I'm filling up physiological and mechanical canisters. So, in other words, I want the athlete to be mechanically sound as possible and I want the athlete to have the bioenergetics canisters full in terms of like that threshold, VO₂ Max, whatever the case might be. And then right here towards the end, I'm looking at these functional transfer methodologies that transfer the engine to meeting the demands of competition.

Robb: Bobby, do you have some examples of some of this power work you mentioned? Plyometrics, are we talking about depth jumps, bounding, skipping rope, medicine balls, Olympic lifts, all of that? None of that?

Bobby: No, no. Very much so. So, all of the above and some of the above. You're looking at my sports which are swim, bike and run and they're all very linear sports. When you get back to the concept of consistency and looking after that athlete then paying attention to a lot of multiplanar work to counteract the effects of this linear work that the athlete is doing when they're swimming, when they're biking, when they're running, but from plyometrics, maybe taking afterward plyometrics and making the word power because very few athletes other than sprinters and explosive athletes can actually react or act fast enough so that the true plyometric effect within the muscle spindle is achieved.

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So, it's more a power thing. And then the power is quite within a small sphere but it's definitely strength with speed. Your plyometrics definitely comes into that. Your hopping, your bounding, your explosive squatting, your explosive single-legged work, and looking at multiple sets, four to six sets, but a very low repetition work. And if those repetitions are getting too long, very, very quickly

moving to an increase. And then, of course, again, the consistency component is the skills work of execution so that those don't become damaging, so that they become a progressive framework.

Robb: Fantastic. That's fantastic. Bobby, what about nutritionally, how are things changed on the fueling side of your coaching over the last, say, like ten to 15 years?

Bobby: Honest truth, Robb, it's become a situation where I'm working more and more and more with experts. When I first started coaching, even with Olympic level athletes, I would be the massage therapist, I would be the dad, I'd be the mom, I'd be the sports psychologist, I'd be the coach, I'd be the strength and conditioning guy, I'd be the nutritionist. Now, I outsource all of that with a high performance athlete to experts.

I even try and have a say so with the experts in terms of their approach. So, old school, based on the athletes side. But with the pro athletes, we're very looking at their metabolic efficiency. We're using a gas analyzer and looking at their switch point when they -- At what heart rate, at what intensity are they switching over from fat metabolism to carbohydrate metabolism? And then adjusting the nutrition and periodizing their nutrition.

So, when they are on off days, just basically reducing calories all around, sifting substrates around a little bit in terms of recovery and then looking specifically at the intensity and the volume of the workload they're doing in terms of pre, during and after. It's a very periodized thing. And then with the component that I'm trying to add to the high performance athlete is the emotional component around nutrition.

So, in other words, sure, we eat to do the work in order to perform and we eat to perform but that's a small part of the picture. If you look at the challenges that you have in nutrition, how do you put this into the athlete's lifestyle, how do you help the athlete manage that part of it so that when they need to go into caloric deficit because they might never have been in their lives -- Let's say, they come from a swimming background. The whole concept of caloric deficit is never been something that they needed to consider or to deal with mentally and emotionally as opposed to a distance runner, running background or a racer or something like that where that whole concept of reset moments when they have to go into caloric deficit in order to switch mechanism, et cetera, et cetera.

So, trying to not hold the athlete" hands but trying to preface the process objectively especially within the US paradigm such that the athlete doesn't get a mental emotional bruising which then plays into the unrealistic demands of the sport. It doesn't matter what the sport is. At the very highest level, it's not a

holistic thing. It's not necessarily even a healthy thing. You look at male marathon runners being the lowest, having the lowest testosterone scores of any male athlete sport. That's not a good thing.

Robb: Right.

Bobby: You've got to counter that. And I'm sure that those numbers are gained from a community that had not yet been tuned into this power component requirement of the endurance athlete.

Robb: Got you. Got you. Matt, you have managed to -- I've seen and experienced your coaching. It tends to be a very minimalist approach even for your athletes that go for exceptionally long distances and you've had quite a lot of success in obstacle course racing and whatnot which are multi-hour, sometimes multi-day events. How have you played with this more minimalist approach? That had to have been kind of a scary thing to start doing that initially when it was all volume, all intensity all the time previously?

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Matt: Yeah, yeah. And, of course, in my background, I had done at one point far too much volume. I learned the hard way that that wasn't the best approach. But, of course, that was sort of the old school thinking. And, yeah, even for my business, when I first started really, really implementing the low volume high quality approach, I would say, initially, I lost some business but I believed in what I was doing or what we were doing and we ended up having athletes that proved the point and then it got easier from there.

Bobby has a quote that I like to use. There's no courage in defeating mechanics. So, I would have to say the start is that if we have a runner with a valgus default; in other words, their running is just falling forward with control but they're not controlling that gait, we have to go back to the basics and start to do a lot of triphasic work, like phase one stuff where they're doing, let's say, a single leg squat but they're holding that parallel femur 90 position for five seconds before they're going back up again for another rep in.

Then from there, we qualify them into additional phases. When we get to phase four, that's when we can really take advantage of what Bobby is referring to as the power training. So, I didn't want to preface that by saying that I do think there's a lot of work to be done to be efficient in those power zones. But then you can really see the difference in the quality and the fact that your body is able to recover far, far better when you're taking a more minimalist approach.

I have an athlete here, Suzie Snyder, who she had a potential career ending injury to her hip falling off her bike last year at nationals for the Xterra Championships. This year, she ended up becoming the Xterra national champion and just placed third in the world on Sunday. The really interesting thing about her is she couldn't do much running at all, mostly pool work. Bobby and I had some great conversations about that. Took a very minimalist approach to her running and yet had the best competitive year of her career so far.

I do think that because we took that minimalist approach, the quality of her workouts got better and better. I really think that a lot of times we feel like we have to put in a lot of volume in order to achieve that fitness that we want. It's simply not true. We've had, for example, a marathoner, masters marathoner, Doug Dirks, who ended up going from about 70, 75 miles a week all the way down to just about 35 miles a week but putting power as more important approach to his training and cutting his mileage down in about half.

He recently, in the Duathlon World Championships, he was seventh. Ultimately, I think, that we are proving the point that, geez, you can get an athlete down to half of the training. Once they've built up that endurance then they can really maximize their power efficiency through this minimalist type of power training that we are doing. Of course, the injuries are far less. Doug had plantar fasciitis. He couldn't run at all a couple of years ago and now he's having the best year of his life. Again, it comes back down to that basic idea that more is not better. It's quality over quantity and it's about really addressing your weak points and really making sure you're staying on top of those things.

Robb: That's fantastic. Well, guys, we could go on for hours. I want to be respectful of your time particularly considering it took me about 20 minutes to figure out our Skype hiccups, getting this thing going. Can both of you let folks know where they can find you on the interwebs? And we will have links to that in the show notes. And then also, you guys are working on some projects together so let folks know about that we wrap up. Matt, let folks know where they can find you and then, Bobby, please do the same.

Matt: Yeah. If you go on to matt@pendolatraining.com on my website, you can feel free to ask me a question there on my blog and my website and I'd be happy to get back in touch with anybody that has any questions.

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I'm also doing some work here locally with Reno Orthopedic Clinic. Dr. Albertson and also John Hodges over at Nevada Physical Therapy and we'll be putting some stuff up on YouTube just return the sports type of things. Of course, Bobby and I have some pretty big plans for the future. We really want the quality to be there

first. So, I must have over a thousand videos right now that we've put together over here. And Bobby and I are working hard at putting that to good use. So, next year, we plan on releasing some videos specifically for triathletes which I'm really, really excited about.

Robb: Fantastic. Bobby, where can folks track you down?

Bobby: It's very simple. They can just go to bobbymcgee.com and if they want to send a specific note to me, just bobby@bobbymcgee.com. That's M-C-G-E-E, so the Old Irish spelling. And on there, they'll find all the details about the run transformation course and consultation work and also the publications and the videos that I have available. And then if they wanted to go and check out some of the stuff that I've done, just go to Bobby McGee Running on the YouTube channel and you'll see a whole selection of videos there. So, not difficult to get hold of me and to find access to those areas that I work in.

Robb: Fantastic. Well, guys, thank you so much for coming on the show. Thank you for your patience as I work through my technical difficulties getting this thing up and going. Matt, look forward to seeing you in real life here soon. And, Bobby, hopefully, our paths will cross sometime soon as well.

Bobby: I look forward to it, Robb, and thank you so much for the opportunity. And as Matt said in the beginning, definitely a privilege and an honor. Thanks so much.

Robb: Thank you, guys. We'll talk to you soon. Have a great rest of your day.

Matt: Thank you.

Robb: Bye.

Bobby: Bye.

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