



James Steele, PhD - Low Frequency Workouts, Relaxing Diet Dogma, and Challenging the Quantified Self Movement

Lawrence: Lawrence Neal here. Welcome back to highintensitybusiness.com, the podcast where we discuss high intensity strength training and provide you with the tools, tactics, and strategies to help you grow your strength training business.

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This is episode 356. Today's guest is [Dr. James Steele](#), one of my favorite guests who is appearing for, I don't know, 39th time. James Steele is an associate professor of Sport and Exercise Science at Southampton Solent University. He's a member of the [American College of Sports Medicine](#), and the British Association of Sport and Exercise Sciences, and is a fellow of the higher education academy.

James, welcome back to the podcast.

James: Always a pleasure, Lawrence.

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Lawrence: Just moving these notes onto my other screen here so I can look at your lovely face and facial hair.

James: Trying to grow it back up a little bit higher at the moment.

Lawrence: Are you? I miss the other. You had a much more [Gandalf](#) style beard before.

James: I came across a photo from at the beginning of lockdown where I just went I'm not going to trim it at all. You could not see my neck. It was like a proper [Amish](#) looking big old beard. Yeah, yeah. That was when I started shaving again.

Lawrence: I think it went really well with the winter workouts.

James: Yeah, it kept my face warm.

Lawrence: Absolutely. As discussed, for those listening actually, James and I normally cover some very heavy topics. I'm sure there's aspects of what we will talk about today which might get into some of the science. But we thought it would be good to just have more of a lighter conversation about training and James' habits which are often things that we might tail end the podcast with. It would be fun to just get into that on this episode and if we do have time

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get to some popular questions that are asked as well. Thank you for doing this, James. It's always great to see you and chat to you.

Let's just talk about your training in general. What does your training look like right now?

James: An interesting question because to be honest it's funny whenever we have this conversation it's like, well, it's pretty much the same as it was last time. I'm definitely a creature of habit in that respect and my training is still as and probably always will be based around a very simple core bodyweight routine. But I will say there have been some broader changes to my approach and mindset to training I think recently. I'm actually training a lot less at least over the last few months partly because I've been picking up other activities and wanting to spend more time doing those, and not wanting training or fatigue or anything like that to interfere with those activities. I've taken up golf again recently. It's one of those sports in particular where part of the reason for taking it up is the background. I grew up playing golf. I was never a great golfer. I had at best my handicap got down to the low teens. I wasn't an amazing golfer but I was an okay golfer, and then didn't play for about 15 years until I picked it up again last year. I've enjoyed getting back into a sport and a hobby that I can see myself improving at over the long term as opposed to I think in the past I've run track, basketball, and various things.

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They're all sports that you feel the ravages of age slowly taking over. The heydays of you forgone. You're never going to be as good as you were.

I've got this new found motivation to throw myself back into golf wanting to play that more. But it's one of those things I don't want to play when I've got dams or I'm feeling fatigued or anything like that. Yeah, I've probably found myself on average going back down to maybe training once a week particularly if I know I'm going to be playing one or two rounds of golf that week. Other than that it is still a very very similar routine though - full body bodyweight workouts in the garden, the odd workout in the university gym here and there. It's nice. It's quite relaxing. And it's nice to have something else to focus on alongside the training and to think a little bit about how training fits into that lifestyle I guess at the moment.

Lawrence: Do you see it making any difference that you reduce it down to once a week? Do you still think you're going to get basically the same outcomes as you always have?

James: Oh yeah, not at all. I've noticed... I was talking with [Fisher](#) about this earlier actually. It wouldn't surprise me in the least if I... I would very much doubt if I would see any noticeable changes in strength or body composition even going down to training once every forth not even once a month with my other activities. I walk a lot. I walk 10,000-15 000 steps a day in playing golf, in

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playing basketball maybe once or twice a week still. Yeah, I really think that at the moment it's good. It's enough. That minimal routine is very much enough for maintenance. As we've discussed before, I'm not under any illusion that I'm going to make any drastic changes or any drastic changes are possible as a result of training anymore. I'm happy to focus my attention and time is limited so there's an opportunity cost if I spend too much time training. It means I can't spend as much time playing golf.

Lawrence: Yeah, it's so interesting. Does that mean that the single session has slightly more volume than normal or not?

James: No. It's normally pretty similar or even in some cases at the moment at least over the last couple of months I've been fairly busy and my diary's been less predictable than normal. I think I'd settled into a routine over the last 18 months or so working primarily from home and being able to have just complete control over training whenever I train at home, in the garden typically. Now I'm kind of in and out of the university and so thinking like, okay, what days and times am I going to be able to even get in the garden for a workout or am I going to have a half hour where I can jump into the gym at the university or something like that. Typically, if I've got time I'll stick to my normal routine. No more volume than I used to do. Sometimes though I'll be finding myself just jumping in the garden and doing a set of pull-ups, push-ups, and a wall sit or some single-leg squats and literally that being it.

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And just being kind of get in get out get it done get back because I've got meetings or too many projects that I've said yes to.

Lawrence: Maybe both.

James: Although having said that I think because in general my frequency is lower if I jump into... For example, Tuesday this week, I trained at the university gym and was also reminded why I like doing that infrequently because I was really busy. But if I'm going to be in that environment and there's access to exercises I wouldn't normally be able to do at home, I'll normally do a little bit of extra. But it's just because I miss not being able to do those exercises - so dips and deadlifts. Because I could rack up some heavy weights on the barbell and do some deadlifts which I wouldn't normally do. I did the 45 degree leg press, donkey raise, calf machine, and probably did more volume than I would typically do for a workout but more just to take advantage of, "Oh, it's there I've got 10 more minutes than I would normally commit so plenty of time."

Lawrence: Do you just go in there and judge everyone who's not doing some kind of evidence-based resistance training or high-intensity training?

James: It's funny I had this conversation literally yesterday with a colleague. I said, "You know what, I don't pay anyone any attention anymore in the gym now."

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I walk in and I do my own thing. Maybe at most I think to myself like I briefly give them some consideration and go like, “You know what, you guys are lucky. You guys are going to get a show today.”

Lawrence: I love it. This is how you do it, right?

James: Yeah, exactly.

Lawrence: That's the right way rather than lament the inadequacies of their own training form and programming instead switch it to I'm going to set an example.

James: Exactly.

Lawrence: So just going back to your own workouts at home. I understand there's those kinds of ad hoc workouts. I think we all have that sometimes where we're in a pinch and we've got only so much time so it's the big three and done – it is chin ups, push-ups, squats or wall sits. But when you do have time and you're not rushing and you can do like a full home workout, can you just give us the details on each exercise just so the listeners have a complete view on that?

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James: Yeah, sure. It is essentially the same as it has always been for probably part of the last decade. My normal routine will be I'll normally aim to train twice a week. But like I say at the moment I don't strict out if I don't get twice a week. I'll normally alternate between a kind of A, B routine that are very similar just with very slight tweaks. One routine will be neutral push-ups. Well, to be fair I got some of those handles, I forgot the brand name, you can loop over and start to do a pull-up grip. I think they are called [unclear] or something.

Lawrence: We'll try and find it.

James: Anyway, like some more free moving handles that I can do some pull-ups. A little bit like doing it from parallel rings or gymnastic rings which I did have. So push-ups, pull-ups, wall sit into bodyweight squats, and then bodyweight row and dips and maybe a plank or something like that. And then the alternating, the opposite routine is essentially the same structure except I'll do wide grip push-ups, wide grip pronated pull-ups, single leg squats with bodyweight hip thrust superset, and then a narrow grip kind of push-up, and narrow grip supinated pull-ups um. And then, the same again I might throw in some side planks or something like that. It's very similar in terms of... There's a couple of upper body push-pull exercises, lower body/trunk extension type exercises. All of them probably take me 15 minutes or so to get that full routine done. And then like you said, in a pinch I'll run out and

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have push-ups, pull-ups, wall sit, and be done in five minutes. Actually, normally more nowadays in terms of how long the wall sits take.

Lawrence: How long do you generally wall sit for?

James: Do you know I haven't timed it for so long. But I have a rough idea in my head and it's partly because I can normally roughly gauge how long it is depending on where in my playlist I'm at. If I start and I know a certain song is at a certain point I can normally work out and it's probably somewhere around 4-5 minutes or something around like that.

Lawrence: How do you build up the tolerance for that by just doing it?

James: Yeah, I think it is exposure. I think I've always been a bit of a masochist anyway. I like that discomfort. It makes me feel alive. If I am in a pinch though in terms time, for example, sometimes I'll be like, "Right, I know I've got half an hour but I need to train, eat, and then jump back here because I've got a meeting", I will normally do the wall sit with the dumbbells that I've got. I've got a pair of 27.5 kilo dumbbells. I'll hold those and it just shortens the wall sit massively just to get things done a little bit quicker.

Lawrence: Good idea. James, you just gave me a cue there for personal training which is you're right when you said it makes you feel alive. I feel the same way. It's

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like when your muscles are burning that much, that's the message it's sending you right or one message and it gives you that feeling. I'm just thinking I was training a guy earlier this morning and I thought you know what the more intense you get, the closer you get to failure, the more you're going to feel alive. It's like a positive spin on it almost. I think that's a really interesting way of putting it. I don't think I've heard that before actually. Cool. I'm just curious, do you train your neck directly or do you just leave that out?

James: You know what, it's funny. I trained my neck yesterday. I don't normally train it directly at home. But we do have a four-way neck in the lab and so what I tend to do is just... Because I know every now and then I'm going to be in the lab and I'll have a couple of minutes to quickly do a set of flexion, extension, or something like that on there while I'm waiting for someone to come in for data collection or I'm waiting for a session with some students or something like that. I will just very quickly jump on it and get it done while I'm there. I won't program it or plan it in or anything like that because maybe every couple of weeks or so I have the opportunity to just quickly do something like that. Yes, I did it yesterday and I woke up this morning and I was like, "Oh, why is my neck... Oh, yes, [DOMS](#)." That's what it is. I did that yesterday.

Lawrence: Wow, neck [DOMS](#). I wonder sometimes whether that's the benefit of a neck machine over a timed static contraction or manual resistance neck work. I do neck extension, neck flexion like laying on a mat. You can also obviously

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do it like sitting in a chair with a strap, right like much [Drew Baye](#) talks about in [Project Kratos](#). Or if I'm going to do lateral I'll do manual resistance with my hand like I just push against it. I don't know. I've never really experienced neck [DOMS](#) and so I'm curious whether, not that soreness or [DOMS](#) is a proxy for better results or anything. You can obviously correct me on that. But I'm wondering if a four-way neck machine might be slightly more effective, slightly more intense, or slightly better at recruiting the neck effectively.

James: Possibly. Like you said [DOMS](#) is not a good indicator of the effectiveness in terms of adaptation or anything like that anyway. I wonder whether the [DOMS](#) I have was because I don't think I have trained my neck since maybe the beginning of the year. Yesterday was like, oh yeah, actually haven't been... I've been in the lab. I've been so busy that I now have the chance. I've not even think that I would jump on and do a quick set while I was waiting between things. Yesterday it occurred to me. I think probably the last time I trained my neck directly was maybe January or something like that. Maybe a little bit more of it's been a while since those muscles have been directly trained in that fashion.

[DOMS](#) is very unpredictable. But one thing that does seem to be somewhat predictable is the novelty factor. I deadlifted recently as well for the first time in probably a month and a half. Yeah, big [DOMS](#) after that. And it's not that I

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was necessarily training muscles that I wasn't training before. I've been training hamstrings and training glutes and training traps. But, yeah, there was that soreness that was almost like, "Oh yeah, you haven't done this for a while."

Lawrence: Interesting. Do you ever get concerned that your kind of routine which is mostly obviously compound movements is sub-optimal because you're not getting maybe some single joint or direct stimulus? For instance, you don't do calf raises very often. Do you feel like a squat or a wall sit is sufficient for recruiting the calf muscle? I'm just curious how you think about that overall.

James: I mean, I do occasionally pepper some calf raises either bodyweight or with the dumbbells. Again, I train them. There's certain exercises that will drop off my routine if I'm trying to be a bit more efficient with it and I'm not so stressed out or worried about them. I mean, I probably train calves directly in my workouts less at the moment partly because I'm playing golf a lot and the course we play is really hilly. I deliberately carry way more balls in my bag than I ever need to. Whenever I play in partner like my brother picks up my bag they're like, "What the fuck have you got in here? Why is this so heavy?" I'm doing a lot of hill walking with a heavy golf bag on. I think my calves are probably good. I got call in on my calves yesterday because I've not been training them directly for a while.

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Lawrence: Genetics.

James: More genetics. Anything else, yeah. I think I get enough from other activities. And like I say and I think most of what I'm getting now is very much maintenance of what's been achieved over a career of doing this sort of stuff anyway. I think there are certainly exercises that would benefit more or muscles that would benefit more from isolation work. But it's how much more would I benefit from adding those in versus what I'm getting at the moment which is essentially maintenance.

Lawrence: I'm very interested in this idea of the global effect of exercises on other muscles that might not seem to be that involved. That being said, I'm currently doing an A, B split which hits everything more for, well, I guess I am vain and want to see if I can improve but also for some variety and trying new exercises. But just bringing it back to the neck, I'm just curious when you're doing a lot of stuff that involves the upper chest, the trapezius, you're going to recruit the neck extensors and the muscles of the neck, right? Do you think that's happening there?

James: Yeah, I think so to some degree. I mean, so shrugs are something that I'll often do as well. I'll directly train the muscles to some degree through that. And like I say, I think, I'm going to go out on a limb here and say I'm somewhat skeptical of the role of neck strengthening in terms of injury

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prevention in the way it's often portrayed. I think there's less evidence for that than we certainly think there is. And more often than not when you're going to get the injuries that people think they're trying to prevent are the injuries that are going to happen no matter how strong your damn neck is. Impact injuries in team sports and things like that, doing a few neck extensions and flexions or timed static contractions aren't going to be doing much for your risk reduction in that sense. Maybe in terms of mitigating minor sprain, strains, and chronic injuries and things like that maybe to some degree. But also at the same time I think we often overlook the fact that if you're engaging in those kinds of other activities anyway you're probably getting to some degree some stimulus from them anyway. I'm not so sure how essential it is despite the fact that in the HIT community it's often one of many things there's lots of revered ideas and tenets and things like that that people think probably give a little bit more credence to than the evidence should really allow.

Lawrence: All right. Wow. That's interesting. I've never heard that. Have you poured over the literature for neck strengthening quite closely then to come to that or over that?

James: Not extensively. But there's very few... I mean, more often than not my... I was having this conversation with [Fisher](#) earlier. It's funny. We have this little bit of an issue with working in the type of field we work in which is an applied

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field where we go back and forth as to what we think motivates or justifies the types of questions we're asking and the types of answers we're looking for. To give you an example, we were talking about proximity to failure in training and adaptation and things like that. I said, I'm getting to the point where I'm really not interested in the mechanisms anymore, the underlying physiological mechanisms. It's really not that interesting to me anymore. It would be more interesting to me if we had knowledge to the extent that we could build a hierarchical theoretical model of, "Ah, we know that this degree of tension on the muscle fiber yields this kind of cascade of phosphorylation of mTor and blah blah blah." And then, "The motor unit recruitment at this level leads to that." And we can build it up and up and up to the point where we could say we've got a model where we can predict the dose response relationship between proximity to failure and adaptation should look like this. That would be fine. But also most of the time most people are really interested in how hard I should train to get that adaptation. You don't need to know how it works. You just need to do the studies to answer that question.

And so the same thing often applies with discussions around injury mechanisms as well. We talk about things that are empirical questions. They're hard to answer empirical questions. What we often do is we engage in this inductive inference approach where we come up with plausible sounding theories as to why for example neck strengthening might... It

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should entail that there would be... Yeah, if we assume this and we assume that then it should entail that we see a reduction in injury risk. Well, the simple way to test that is to implement an intervention and actually do the study that answers that question. I can sit here and be skeptical of it because I know there aren't any studies that have tested that. It might be true. It might well be true. And I'm not saying one way or the other whether it does or doesn't. My position on a lot of these things has reverted to that we've just not tested the idea well enough to really know about it. We've got a plausible sounding theory and that we could... That deductively entails if this is true we should see this hypothesis here. If neck strength is responsible for moderating injury risk reduction then that would entail deductively that if we increase it we should see a reduction in that. Well, we could go do those studies and they're not easy studies to do. That's the point. Yes, in theory I don't see any harm in doing it necessarily. But I also don't necessarily know that there is the benefit that is often portrayed.

Lawrence: Fascinating.

James: That's not to say people shouldn't strengthen their neck. Do it if you want it. I still do it. I just don't think it's like a magic bullet.

Lawrence: Yeah, fair enough. I think I'm always conscious that I don't want to have a pencil neck. I mean, I probably got a pretty slim neck anyway. I'm like not

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that maybe I can move any load that much anyway but I try to do it just to...
And it always makes me laugh like what [Luke](#).

James: [unclear] neck.

Lawrence: Yeah, yeah. It looks great though. I always think you look like you've got a good neck at you, James. When I've been with you in person I always said that about you. I always thought this guy like whenever you got critiques about your physique I never really understood that because when I saw you in person I was like he looks great. If everyone saw James in person... I don't know. There is something about person versus video or picture. It's not always do it justice.

James: [unclear] well.

Lawrence: Well, neither do I. But anyways where I was going with that? It makes me laugh. I remember [Luke](#) saying if I could add I think it's like 300 grams of muscle to my neck from neck training having more muscle overall being a helpful thing I thought was quite an interesting way of looking at it.

Let's just shift gears for a moment here. I'm curious about diet. I don't often talk about diet these days on the podcast because I don't always think it's that relevant. But it's something I wanted to share because I think it's pretty

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useful to some people. But I'm curious before I do that, what does your diet look like these days? How do you manage that?

James: Do you know that I've really taken a step back from caring too much about diet anymore? For a little while. Maybe we've talked about this last time whether it was on recording or not I can't remember. But I did over the initial lockdown and reached my heaviest weight. And that was mainly because I got into the bad habit of working at home and easily just being able to grab stuff and snack constantly and stuff like that. For a brief period last year, about six months or so, I started tracking calories on [MyFitnessPal](#) again. I didn't really do anything in terms of trying to change the pattern of foods that I was eating. I just kept an eye on snacking and stuff like that and was very easily able to just drop. I put on like three kilos over lockdown which isn't a lot of weight. I didn't really look any different but I was heavier on the scales. Now I'm back down to the kind of pre-lockdown weight that I was. I'm not tracking and it is easily maintained.

Lawrence: How much do you weigh?

James: At the moment I'm about 72 kilos. Sorry, I don't know what that is in old money for U.S. listeners.

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Lawrence: I'll do a quick conversion. You and I are basically the same weight and height. That's why I like saying that you look amazing because that means I look alright, right?

James: Really. You look great, Lawrence? I saw you when we went on the...

Lawrence: You did. He's very kind.

James: You are really well.

Lawrence: Thank you. Anyway, sorry I interrupted. By the way that's 158 lbs. just for everyone listening for 72 kilos. But yeah, you were saying?

James: I mean, do you know what, it's funny. I joke that I've eaten so much cheese on toast since working at home because it is so easy.

Lawrence: The appearance as well. Is it?

James: Sometimes. It depends on what cheese I got. If it's a nice mature [cheddar](#) then yeah. Sometimes I'll have a little bit of [emmental](#) or some [gouda](#) or something like that. [unclear] so well. I mean, I typically still skip breakfast on training days because I like training fasted. Whether there's any benefit from it or not I very much doubt. But I've got into that habit where I don't like

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feeling I've got any kind of anything in my stomach if you know what I mean when I'm training. I've got very used to just how that feels and it works for me. I like it. And so on training days I'll still skip breakfast and then I'll just eat after lunch. But normally breakfast at the moment is, I don't know, like a bowl of cereal but made with a protein shake, and chopped up banana, a handful of nuts or something like that. Lunch is easy cheese on toast. I eat a lot of fruit – apples. I was just snacking on [satsumas](#) before we got on the call. You know what this is the one weakness that I really do have. I love old school... I don't know if you can see that clearly.

Lawrence: They are mints.

James: No BonBons like [Toffee BonBons](#). You still get them in the old school sweet shops.

Lawrence: Yeah, you got an old school sweet jar and everything. It's beautiful.

James: Every now and then I would then. My wife is a [pescatarian](#). To be fair we don't really eat that much. I don't really eat that much meat because it's just not that convenient really at the moment. It's easier to just cook one meal. We'll eat seafood, fish, but we'll also quite often just have meals that are completely vegetarian. We both eat a lot of full fat dairy and whatnot as well. Yeah, I'm really not that stressed about diet. I don't really pay it too much

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mind. I eat to satiety and just leave it at that. If I look like I'm putting on some weight then I eat a little bit less and if I'm hungry I eat a bit more.

Lawrence: Do you use [intermittent fasting](#)? Sorry, you said you train fasting.

James: I don't typically fast much more than maybe 16 to 18 hours at most if I do fast. It's probably more on the lower end of you know 14 to 16 hours overnight up until I normally train maybe just before or just around midday anyway. Yeah, so it works out maybe about that long.

Lawrence: Do you now think that the fasting plus the training fasted has a really nice effect on your metabolic health which in turn probably helps suppress appetite or may allow you to burn fat more effectively, right?

James: Maybe. Again, I find it hard to on an individual basis like to tease out what's causing what. That's just the nature of determining causality, that's why we try and do randomized experiments. I'm skeptical of my own introspection on a lot of things when it comes to this stuff as well. I have for example like you say I've got used to the feeling and I like feeling now fasted when I go into a training session. But I've also got used to the behavioral pattern that I fast, I train hard and then I typically have lunch afterwards. And so I'm kind of used to expecting food after fasting and training. Now, if I didn't train I can easily still do a 24-hour fast easily and not really feel that hungry during

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that period. Every now and then I'll do it just for the interest of doing it. Very rarely now, maybe once or twice a year or something.

Lawrence: Have you looked into the... I'm curious what your views are about the claims about greater longevity from prolonged fasting. What do you think about all that?

James: I've not really looked into it. I'll be completely honest with you. I couldn't care less. Again, similar conversation with [Fisher](#) earlier today. The questions around longevity are just [unclear] at some point. At the moment you showed me convincing evidence of which I think there's very little for a lot of questions that we think we do have convincing evidence of that there is a meaningful increase in health span in terms of disability adjusted life years. Life years spent being independent and being able to do whatever I want and not suffering or not having to seek medical care and be rattling like a pill bottle because I'm taking so many medications. That I care about. Adding a year or two onto my life, who knows, by the end of that, by the time I get to that point I might be like, "Get me the fuck off this ride." I couldn't care less about those sorts of questions anymore. I really couldn't. Maybe my perspective will change when I get to the end and I'm like, "No, no, I want to stay on." It just doesn't interest me.

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For the sake of what could be a marginally increased life span of unknown quality at the moment versus having cheese on toast and a nice hot chocolate or whatever right now. I'll go for that.

Lawrence: Interesting. You used to be quite strict if I might say about your [paleolithic diet](#) that kind of approach. So that's changed it seems like you're far more liberal about some of your diet choices. Has that had any negative impact on you whatsoever or has it just had a positive impact in terms of your joy of eating?

James: Yeah. Honestly nothing like... And not to negate anyone else's lived experiences and whatnot. But I liken this similar to I think we've discussed before everyone's got the story of, "You know, I was originally doing high volume of this and that and then I found HIT and magically I got all these wonderful gains and stuff like that." I always was a bit like, "Really?" Because honestly like the same with me. I've trained a billion different ways and honestly there's been so little noticeable difference to my aesthetic strength, etc, and anything that has has been very, very minor to the extent where it's kind of easily explained away by things like specificity and stuff like that. But similarly with diet, yeah, there are still. Something was said before like once a month me and a group of friends have a geek day where we play. I've been doing some painting at the moment.

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Lawrence: So jealous. You have to invite me along to one of this [unclear].

James: We got our little man's out. We push them around the table. We play some role-playing games and stuff like that.

Lawrence: You play [Magic: The Gathering](#)?

James: Yeah, we do.

Lawrence: I love that game.

James: I haven't played it for a while actually. But, yeah, I've got a few decks.

Lawrence: It's now on iOS by the way on the iPhone. It's quite addictive.

James: I've got an Android. It's really funny when they originally released [Magic: The Gathering Arena](#) app. I think [Danny Trejo](#) was on the advert. It was a really funny advert.

Lawrence: Who was that? I don't know who he is.

James: He's a Mexican actor who really sort of like...

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Lawrence: Yeah, yeah, yeah, yeah.

James: You know what I mean. He is in the [Machete](#).

Lawrence: Yes, I know that one.

James: Yeah, yeah, yeah. It's really funny. He had one of his bowls of cereal when he was watching the guy playing. He's like, "Use your Llanowar Elves." It's a great advert.

Lawrence: I could picture that.

James: It's really funny. Anyway, what was I saying? Oh yeah, that's it. Once a month we'll be like, right, it's a geek day and I eat, I don't know, 10,000 calories of crap. Just everything – donuts, cakes, cookies, extra-large pizza, everything. Yeah, the next day I feel a bit rough. It was enjoyable that day and then a day later I had a big poo and I'm fine.

Lawrence: Lovely, James. Thanks! You remind me to set this explicitly at the end of the podcast. No, it's interesting to hear all of this stuff. Maybe not that last comment.

James: Hey, everybody does it.

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Lawrence: Everybody does it. It's true. What about just in terms of subtle changes like some people claim that they eat one bad thing and then it makes them feel terrible for like 10 days. I don't know whether that's just some obscure autoimmune condition they might have or something like that. If you don't want me saying it does sound like you've had a little... I don't know if radical is the right word. Would the James of all be eating toffee Bonbons and cheese on toast for lunch? Or would he have fasted then had a steak and eggs and then some other paleo dish in the evening. But you are reporting that you don't really feel any different having made this subtle change. I'm not trying to say eat unwell. I don't think you eat badly. I'm just noticing the change.

James: I'm still very flexible and I just don't really stress about it anymore. I think that's the thing. I'm not eating junk food all the time really well.

Lawrence: That's the key takeaway. Sorry.

James: Yeah. Most dinners have a lot of fresh veg. But yeah, I still eat pasta. All the stuff that would be demonized. The James of old would question and demonize. I don't doubt people claim to have these experiences. And also people sometimes want to know explanations for why that is. It almost comes back to what I said earlier about I'm less interested in the

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mechanisms for a lot of questions at the moment because I think they're more applied questions. If you know that eating this makes you feel bad don't eat that. Maybe you want to understand why that's the case. But I'm less concerned about those questions at the moment. But yeah, no, I've had it in the past. I do remember once we went on holiday to Turkey and I spent the entire week eating tons of fresh bread. And I did feel rough for it. I had a bit of an acne breakout and stuff like that. There are still certain things that if I was eating certain ways I would feel bad. But at the moment everything works for me. I'm not so stressed about it. I've generally got a bit of a new rule which I originally... People talk about iron laws. This is my steel law. It originally just applies to academia but I think it's broader than that. It's like people take themselves too fucking seriously and they take their ideas too seriously. Yeah, I just got a bit more laid back as I've got older.

Lawrence: I like that. I like the steel law. I'm learning a lot actually seeing you evolve over the years. It's interesting. I will say this one last thing on diet and then we'll probably move on. I have to share this because I think, again, my lived experience so not sure if this will work for everyone. When I had kids [unclear] on the way. Again, you and I were quite similar genetically. We can get away with it, right? It didn't look massively different. I'll be like, "God, I'm a fat guy..." And the mrs. will be like, "Are you kidding me?" But I got up to 175 maybe a little bit more than that in pounds obviously. I really struggled to get lower than that and that's the first time ever I've struggled with trying

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to lose body fat. And the reason for that is because of a lot of sleep deprivation with the kids and a lot of stress. And stress would just drive me to make poor eating decisions and eat up late and things like that. I would then go, "Okay, I've got to get this handled. Inside the [Membership](#) we've got a little fitness accountability." [Fred](#) and I would write in there, right, "That's it lads I'm going to dial this in now and do it for you guys. Keep me accountable." I fell off the wagon two weeks later.

Recently I've landed on an approach which again is not that innovative and we've been talking about it – intermittent fasting, which is really working for me right now and it seems to be the solution for this time of my life. Basically what I'm doing is I'm, like you, I'm quite a bit more liberal than I used to be about eating choices. I still tend to eat carnivorous, lots of red meat, and lots of eggs. I could argue that's because I believe that's healthier but really it just works for me, right. I enjoy the taste. It's satiating. It's got high in protein, etc. And so I do that. I don't tend to have any cravings for anything bad in the morning or early afternoon so I will eat best then. My life is so crazy right now and as I'm sure a lot of... You don't have to be a dad to be busy obviously but I found just having kids and running businesses have lots of commitments back to back and you are constantly rushing around. It can be 24/7 in nature. Quite often what will happen is I'll finish work, I'll come downstairs and help Ash, help my fiancé with the kids. It's just chaos. And just trying to get some food in whilst you're also trying to look after these

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guys and they are screaming at you to play with them is challenging. We've got a little system now to make this work better for us.

But anyway, the [unclear] is I eat pretty well and then for dinner I have whatever is going. It usually is like a Bolognese or something that's whole food, but then there might be bread, there might be a dessert, a yogurt or something whatever. I might have a chocolate bar in a day occasionally. For me it's actually about sweet things, it's not necessarily about fat gain and stuff like that. It's more about how it makes me feel. For instance, if I had eaten something badly before we jumped in this podcast my mind would not be working the same. At least that's what I experience is if I eat badly it just ruins my productivity so that actually is more of a factor for me in terms of dialing in my better food choices. But anyway let's get to the bottom line here. I've found that if I stop eating at 6:00 or 6:30 at the latest it just seems like my body composition just seems to improve rapidly. Because I used to put Arthur down for bed and then I'd come downstairs and eat. I'd eat late and I'd eat more.

And there's something about. I know [Satchin Panda](#), the fasting research guy, has talked about this a lot. I believe there's research out there. If you really want to go into this, I'd look at his work and we'll link it up in the show notes. But there's some research around how eating later even if you're eating whole food... I think it might have actually been in rats actually. I can't

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exactly remember. But their outcomes were worse than those that were eating anything in line with their [circadian rhythm](#), so eating in the day versus eating late at night is interesting. Again, I can't really comment on the quality of that research. You'd have to investigate it for yourself. I don't know. There's something about whether it's controlling caloric intake, or signaling, or something.

It just seems to work for me and again helped me shed body fat effectively. I've just been looking at myself in the mirror lately thinking and I can see my abs again. It's like what is happening here? But yeah, I'll be eating quite liberally just whatever. I'm like there, James, just still feeling that stress at 5:30 in the evening and I'm like, "Come on, Ash, where is the sugar? I can't find anything here. Oh, there's the honey. I'll grab a teaspoon of that." I never used to obviously have that same stress level where I'd need stuff like that. But I just to an extent accepted that in my life right now as something that helps me get through things I suppose, which is good or bad. Anyway, that's a bit of a long-winded story.

James: It's interesting though. And I do think that maybe it is cliché or whatever. It's like many of these things. The effects of a lot of the things that we manipulate, and control, and the minutia we try and tweak around people are probably aware. I'm skeptical as to how big an impact they have. But if you can find something that seems to be working and fits into your daily routine,

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well, you know it just works for you in that sense then that's great. I'm kind of the opposite. I'd prefer to be eating. There's something nice about the... We often end up having dinner a bit later anyway. We might eat dinner maybe around seven, half seven, something like that. We'll maybe sit down and watch something on TV or whatever and I quite like having something there. I'll tell you one thing that I do is my weakness. Ice cream has always been my weakness. I can polish off two tubs of [Ben and Jerry's](#) no problem.

I wouldn't even feel guilty. But because of that what I do is I often have the freezer like stocked up with the 350cal tubs of ice cream. I like the [Graham's Dairy](#) stuff. So after dinner it'll be right I'm going to say I need an entire tub of ice cream. It's nice. I like sitting there. It's nice. Nice chill out times and enjoy the ice cream. Oh, that's great.

Lawrence: Every night or just every now and again?

James: Sometimes. Sometimes I'll have every evening of the week it could be. And then other times I'll be like I just don't feel like it tonight. I'm going to have a cup of tea and that will do. You just find what works for you. For me it works quite well. I could quite easily get up just to drink black coffee in the morning and then eat lunch. Have some lunch. Have some fruit as a snack or whatever. Have some dinner. Have some ice cream after dinner.

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Lawrence: I know you don't care about mechanisms, right? But I'm not saying you don't care but you're saying you're caring less about that and I get that. It just seems to me that... Well, I guess we're not mechanistically talking about the biochemistry of all of this, right? But the fact that you fast in the morning and the fact that you strength train; and obviously the fasting helps you control that caloric intake, the strength training helps you become more metabolically flexible and insulin sensitive, that is perhaps allowing you to get away with this. Is that a fair comment?

James: Maybe. Maybe it's just the fact that...

Lawrence: Such a scientist.

James: It's like 350 calories of ice cream. It's not a huge amount and it's 25 grams of protein or whatever. Yeah, I don't know. Maybe.

Lawrence: Fair enough. Fair enough.

James: Again, the old James is there and maybe bullshit some plausible sounding mechanism and now I'm I don't know.

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Lawrence: No. not at all. I think you've always been quite honest about your lack of opinion on a lot of these matters to be honest from the beginning I would say. I've always admired that about you. You know that.

I want to talk to you about quantified-self stuff now. I know again you're probably going to be coming at this with a little bit of what some might see as a pessimistic outlook. But I think you come at this with a very scientific outlook. I think that's why it's valuable. But I have been hammered by this lately from all directions in terms of people wanting to come on the podcast to talk about different devices that track different data like the [WHOOP](#) bracelet, or [Oura Ring](#), and all these kinds of things. Obviously now that I run a personal training studio people talk about this all the time. I have people on the machines like hitting their watches to track whatever beforehand. I get into some interesting conversations but I always think back to that conversation we had a while ago, it's probably a couple years ago now, where we were talking about... I think it was you I had this conversation with where we were saying about if you're tracking sleep for example. If you wake up and you look at your sleep quality and it is crap, does that then become a self-fulfilling prophecy like you end up having a terrible day and being less productive? Whereas, if you've never seen that data you might have been just fine for example, right? Anyway, let's just kick this one off. Give me your latest view on this. Do you still make blanket statements and think none of

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this is useful? Why are we doing it? It's all noise. Or do you think there's utility to some of it and if so where?

James: The way I think about this now is maybe it is very similar to how I've always felt about it. But maybe there's a little bit more nuance to it now. I think of it from a kind of decision theoretical perspective. When you look at decision theory it is really the area of study about how we make choices given information. Particularly, statistical decision theory. Again, it's really funny maybe because we were going to have this conversation. Me and [Fisher](#) grabbed the coffee before this and talked about it.

Lawrence: I appreciate it.

James: Again, we were talking about my training. I generally feel given what we know about the long-term way in which strength adapts to continued engagement with resistance training. I'm sitting right in the plateau at the moment. That's pretty much where I am. That's where a lot of people are in this kind of niche. And so from that perspective, taking that as an example, the way I look at it is on the one hand someone could say, "You need to be tracking everything. You need to know if you're increasing/decreasing." I look at it now and think about the utility of that information. How does that information help me make decisions? Will that information in any way change the decisions I make about the way in which I engage in this behavior? If I were to track my

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workouts for example, as far as I'm concerned, I haven't seen any meaningful improvements when I was tracking my workouts religiously. Given everything we know about or I can claim to say that I think I know about the way in which people adapt to long-term engagement with resistance training, I'm not convinced I'm getting any meaningful increases now anyway. I'm certainly not really convinced that changing what I'm doing is going to produce any change.

Let's say I find out that, "Oh no my strength is going down. I'm getting worse." Well, what I'm going to do. Well, again, as far as I know nothing is going to change that. That's aging. That's just what's going to happen. I look at it from a utility perspective and think that the information I'm capturing is going to actually be useful for me in making decisions about what I do for the vast majority of stuff that people jump into the quantified-self movement. Because it's all very much health oriented. That movement it is. I think it's not going to make any changes. It's not going to help me make changes and decisions about what I'm doing.

Now, I'll give an example where I do track things. Golf. I'm tracking what clubs I'm using for different shots. I'm tracking what distances I'm hitting.

Lawrence: Spreadsheets?

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James: Well, I mean, I've got an app. I've got a watch app that does it all for me. I did think about doing that and then I was like actually this would be way less work to just buy something that already does this for me. But yeah, I want to know what aspects of my game are improving. Because it's something where I can still make decisions about what I should be focusing time on practicing and things like that. There I see utility to the data. Other areas I don't see useful for capturing that data. Capturing data there's always a cost associated with it whether it's buying the stuff to do it, the time to do it. All of this adds up. This is all stuff that should in theory go into study planning and stuff for research as well. Again, it's hard to do. But the best approach to research would really be to say, "What's the utility for the additional information in this respect?" Is it worth the costs of doing the study in the first place? That's not how it works because everyone needs to do the study to get the paper, to get the promotion, to get the job. That's how science progresses in a sociological sense. But in an ideal world, we would properly be statistical decision theorists and think about the homo economicus way, think about the utility of the decisions, the information and the costs associated with getting it and stuff like that. I guess that was a bit waffly. But in a roundabout way that's my general view on data in general and it applies to data I capture on myself as well. I capture it if it's worth me capturing it.

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Another thing I keep track of is I keep track of my average miles per gallon on my car because I like to keep it as low as possible. I like to be green. I also like to spend less money on petrol so I quantify that.

Lawrence: Especially right now.

James: And it's usable. If I see it's going up, I try to drive a bit more economically. If there's utility to it and the cost of getting it is low then I do it. If not, then I don't stress about it.

Lawrence: Yeah, interesting. Like you say, if there's utility in tracking it and it makes sense then you will. It's like bringing it back to the numbers when we track reps and performance in the studio in personal training. To your point it might not make any difference if they get to muscle failure. Who cares right for the most part? But people love to see numbers as a measure of their performance because it seems very black and white. What we found is that it works really well to show people. We can show them how much their strength has improved. That is obviously an objective measure so long as we're controlling all the variables and stuff like that. But people just love to see that improvement over time even if they don't really need to see that in order to know what to do. You know what I mean?

James: Yeah.

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Lawrence: But we understand it's powerful for a retention to the protocol. And that's really important for individuals to get the best results and obviously for the business. But yeah, there's some of these other data points that you're questioning the utility of. Maybe we could talk about a couple specifically. I had someone talk to me about [Heart Rate Variability \(HRV\)](#). How do you feel about this one? Because, for example, if you're tracking heart rate variability some people might say that, "Well, if it's changed by this much then that's a sign that you're not recovered from your workout and therefore you should increase recovery." Isn't that an indicator for helping us make sure that we train when we're recovered? How do you feel about that for instance?

James: One thing I will say is if you want to have a more in-depth discussion about heart rate variability you should get mine and [Fisher's](#) colleague [Emma Mosley](#) on the podcast at some point. She did a session for [REC](#).

Lawrence: Yes, I was on that.

James: She is a psychophysiologicalist and one of her areas is in heart rate variability. She uses that as a tool a lot. She's also written a lot on dispelling a lot of the myths around interpretation of heart rate variability and what that physiological signal can really tell us about psychological phenomena and vice versa. I think, again, the issue I often think about... Let me give an example. As I said, I'm somewhat managing my training frequency and

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volume a little bit more to manage potential fatigue because I want to play golf more. I don't want to play golf when I'm fatigued because if I have a crap round and I'll be like I should have waited a day and I would have played better. But the thing is I don't really need my heart rate variability measurements to tell me you should wait a day before you play golf. I know how I feel.

Lawrence: Like feel right.

James: Yeah. Again, it almost comes back to what we are actually making the decision based on. Is it based on, for example, if your heart rate variability scale said, "Oh, you should take a couple of extra days off training." But you're like, "What? I feel great. I feel like I could train now." What would you do? You've got conflicting information there. You still have to make a decision. What do you weigh more in terms of the decision? And then I also think to myself, well. The example I gave is fine because I'm thinking about the acute performance of how I played golf that day. But most people when they're thinking about managing training stimulus they're thinking about the effects on longer-term adaptation. Well, is really using your heart rate monitor to measure heart rate variability and think about taking an extra day off going to really affect your gains long term as opposed to if you trained a little bit too early or maybe a little bit later than your heart rate monitor says.

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Again, I'm not saying people shouldn't do it. I personally don't necessarily see the value in it for those outcomes.

Now, one thing I would say though is like you said before some people love this stuff. Some people love it and if you love it, do it. Geek out on this stuff. If that's the reason you love it then do it. But you're not going to fool me that there's really utility in doing it for these other things. I think about it in the sense that as well as people will know one area of research I'm super interested in is effort in general. It's an area of research where I can spin a yarn about why it's useful for me to conduct conceptual analysis and deep philosophical thought about what is effort, what is perception of effort, and think about how do we define these concepts, and how do we understand them, and how do we understand their relationships. I can come up with all these wonderful reasons why if we understand this a bit then that will help with developing theories around this and that and all of this wonderful stuff. It's all a bit [unclear] really because I can't tell you why. For some reason I just find it interesting. I don't know what it is, like it's an interesting little puzzle to solve. What's the utility in doing it? Well, I have a good time thinking about it. That's fine. That's absolutely fine.

Lawrence: Isn't there utility in terms of how that then stimulates more research around how we get people to. What I'm trying to say is it basically allows us to better

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understand how much effort we need to apply when we exercise and then how we then transfer that into the real world. There is utility there.

James: Yeah, no, absolutely.

Lawrence: It's not just a selfish pursuit in it, James?

James: No. But when I think about the utility, I'm thinking about the utility for me in pursuing it. Because someone else could go do it for those reasons. But why do I do it? Is my motivation all of those things you just said, it's good for science, good for developing this, there might be some potential. A bit like [Watson](#) and [Crick](#) were tinkering around with understanding the structure of the DNA. They could not have foreseen all of the potential benefits out of it. Maybe they had an idea in their head of like, "Oh, if we figure this out, maybe there will be some cool stuff we can do in the future for this, that, and the other. Maybe not. Maybe they just found it interesting and that was the utility for them. That was the value that they got out of it. This is maybe a bit broad again because it's thinking about why we do science.

Lawrence: No, this is interesting.

James: I can quickly find it. There is a great... I'll send it over to you.

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Lawrence: James, while you're looking. I mean, it's weird. I love gadgets, right? But I never ever got into the quantified-self movement. I think maybe you put me off. But I did like the idea of an [Oura Ring](#) because I like the fact that you could wear it and then you don't have to really think about it. You don't have to be actually putting like you were talking about the effort and time for this stuff. It is automated. I think the only thing that put me off was the cost of buying one and then also thinking that actually I already found myself. I did one of these personality tests recently on these [Jordan Peterson](#) things and I scored. I don't know. Your colleague, [Dave Smith PhD](#), told me offline that I don't think I should take this stuff or is it offline maybe even said on the podcast. Question whether I should take these things out seriously. But anyway, put that aside for a moment. I scored very, very high on conscientiousness, neuroticism, and orderliness like top 1 or 2 percentile. I got to say that it's not hindsight bias that I am that way. I get so stressed out about open loops. If you know what I mean like undone to-do lists. So I have to be very mindful of how many things I'm actually tracking. And that's another really big obstacle for me for pursuing or looking into the quantified-self stuff because I'll just get really depressed if I start to try and track all this stuff. I'm already trying to eliminate it. I'm trying to delete stuff. Anyway, that's just a thought I wanted to share. But did you find what you were looking for though?

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James: Yeah, no, I was just thinking about it in general. There's a great interview with a guy called [Michael Atiyah](#) who is a British-Lebanese mathematician. There's a question and I screenshotted this because I love it. I shared it with my student. I teach research methods and philosophy of science and stuff for students now. I'll read it out to you. The interviewer said, "How do you select a problem to study?" And [Atiyah's](#) response was, "I think that presupposes an answer. I don't think that's the way I work at all. Some people may sit back and say, "I want to solve this problem." And they sit down and say, "How do I solve this problem? I don't do that. I just move around in mathematical waters, thinking about things, being curious, interested in talking to people, stirring up ideas. Things emerge and I follow them up. Or I see something which connects up something else I know about and I try to put them together and things develop. I've never practically started off with any idea of what I'm going to be doing or where it's going to go. I'm just interested in mathematics. I talk, I learn, I discuss and these interesting questions simply emerge. I've never started off with a particular goal except the goal of understanding mathematics." And I think more and more both in terms of it is just personal like life and what I do because work and scientific pursuit is part of just what I do now as well. I think about it in the same way. Like now I'm not that interested in the mechanisms and stuff like that anymore. Really I also am because I've got more interested, as you've probably realized, in more methodological questions around how do we even answer some of these questions. And oftentimes there will be cool

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opportunities to try and solve puzzles where I'm not really that interested in the substantive question so to speak. But I'm interested in how we figure out a solution to this puzzle because that could be quite cool. We could take that and it can apply to this, that, and the other.

I'll give you one quick example. I'm going to be hopefully working with going back into some sporting applications because there's a company that has developed these training tools and testing tools for soccer and netball and various different sports. I've been working more on trying to understand measurement theory and in psychometrics. There is something called item response theory. I won't go into detail about it. Anyway, it's an approach to measuring latent phenomena that is applied quite broadly in psychology, psychometrics, and educational testing and things like that. I've been using this for certain things and all of a sudden it kind of clicked that this could be used in this application. It is like oh this is interesting. I don't really care about soccer but this could be quite cool to try this out. It turns out someone wrote a paper suggesting this in 1989 and no one's done anything about it since then. So I was like, "Oh cool. This is like a cool fun little puzzle, a fun little opportunity to try something new, something exciting." And it's interesting. I don't know why. You know there could be incredible utility from it. I think as we've discussed in the past we wrote that paper about sports performance, how hard it is to measure and things like that. Well, actually this... I won't go into detail on them because it's quite complicated mathematical modeling.

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If it works out we could end up with ways of testing and exploring whether sports ability improves as a result of different interventions that kind of gets around the issues that we've discussed in previous podcasts. Why is that interesting? I don't know. I just don't know. That keeps me up at night. Why do I find this interesting?

Lawrence: I think one of the lessons here is to follow your curiosity and your natural interest even if it totally derails whatever it is you're doing. I mean, within reason obviously. I mean, I just had this urge yesterday to read [Cal Newport's](#) book [So Good They Can't Ignore You](#), which is by the way a book all about building a business or pursuing a career or whatever based on your skill and competency as opposed to your passion. Which obviously spins that whole view of go and pursue your bliss or pursue your passion and you'll be happy. He challenges that and it's really interesting. A bunch of people mentioned it to me recently and I meant to read it a while back and I haven't. Stuff like that just spontaneously happens, right? You just have an idea of whether I want to read that or I want to go do that. Maybe that is the way of finding flow or joy or happiness or whatever you want to call it and actually be productive too because it's an effortless activity. I don't know if that makes any sense.

James: Yeah, no. This is the thing. All of this stuff is hard to [unclear] You said about flow. I was genuinely astounded because as someone who experiences that

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a lot it shocked me to find out that some people have never had those experiences. You describe these experiences to them and they can't relate to them and whatsoever. For that I think well I'm really, really fortunate. And it doesn't help because it's why I did it, what lessons people can learn. Again, some people look at the way I think about these things and think I just couldn't do that. I need to feel I'm having an impact doing something meaningful. That's cool. If that's what motivates and drives you, do it.

I'm just conscious of time but maybe a good way to finish this is I had a session a few weeks back. I'm teaching research methods to undergraduate students at the moment. I've taken a very different approach to it now. We spend a lot of time in deeper philosophical thought around things and discussion. We had a very long engaging discussion about how you pick a research question to work. It was interesting to see the diversity of perspectives in the room. I was just quite lucky that I could say most of what I try and do is exactly what we've just discussed there. But at the same time I also do work on things that are meaningful or impactful and stuff like that. While that might not be the real driver for me doing it. You don't have to limit yourself to I'm just going to go do this passionate thing that I care about, that it's interesting that has no impact whatsoever on the world. There's probably a balance you can find. Something that keeps you ticking, keeps

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you buzzing, keeps you interested, keeps you passionate but has some benefit to others. That's the cherry on top if that's what they end up getting.

Lawrence: I do have a purpose that drives me to do high intensity business and the studio and that's around basically impacting people's health and transforming lives, and whether that's directly through the personal training studio or kind of indirectly through high intensity business helping others attract more customers and change more lives. Am I really doing it for that reason or am I doing it for another reason? Am I doing it for just my interest in this area and my love of strength training and what have you?

We'll leave it there because I know you've got a hard stop, James. But I really appreciate you coming back on. What's the best way for people to contact you these days if you want people to contact you?

James: Probably Twitter. People can follow me on Twitter and see me post ramblings and occasional weird things or via email. Actually, to be fair I've recently set up my own kind of research consulting business.

Lawrence: Oh wow.



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James: So to save people from emailing my university email. If people want to contact me, they can contact me via that which is james@steele-research.com.

Lawrence: Great. We'll link that all up. For everyone listening, to find this blog post and download a free PDF on how to attract great personal trainers to your strength training business please go to highintensitybusiness.com, search for episode 356. Until next time. Thank you very much for listening.