Dacher Keltner: High-Fives and the Science of Emotion in Sport

Welcome to PCA's One on One Positive Coaching Alliance's podcast series where we talk with leading experts about how to develop Better Athletes, Better People through sports. And now here's your host: Jim Thompson, PCA Founder and CEO.

00:15 - JIM:
I'm thrilled to welcome Dacher Keltner to this PCA One-on-One podcast. Dacher is the founding faculty director of the Greater Good Science Center and a professor of psychology at the University of California-Berkeley. He is also the author of *Born to be Good: the Science of a Meaningful Life*. Dacher received his BA in psychology and sociology from the University of California-Santa Barbara and he received his PhD from Stanford. We are also honored to have Dacher on PCA's National Advisory Board. Welcome Dacher.

DACHER: Jim, it's great to be with you

JIM: So, let me start by asking why is the word 'science' in the title of your center? Why isn't it just "The Greater Good Center?"

00:58 - DACHER:
That's kind of a fundamental question. What has happened in the past 15 years is there's been this explosion of scientific interest in things that we've known for a long time. That being kind to other people is good for society; that learning how to play effectively as a child might actually benefit you in the long run. That practicing gratitude or forgiveness is good for your health in your relationships; so, what we really thoughtfully worked through at the Greater Good Science Center is to figure out how this new science of play, and gratitude, and touch, kindness and altruism really is part of a new conversation about building up stronger societies. I think the science is really fundamental to this 21st century audience to think about the path to the good life; that's why we build the term 'science' into our name.

JIM: Yeah, I think that's great. Let's talk about gratitude or gratefulness. Why is that essential for individuals? Then, let's expand it to athletes; sports are often seen as cut-throat – *do whatever it takes to win*; *being kind to the other team may be a problem....*

02:30 - DACHER:
I think that sports are actually a very powerful context in which people learn the ethics of gratitude – just thinking about that because that's my own experience. We really define gratitude in the scientific literature as the feeling of reverence – that is, where you really think that something is sacred or precious or irreplaceable – about something that is given to you. When you survey people, and I ask people in the groups that I speak to or teach, what do they feel grateful about, they feel grateful largely for other people and the gifts that those other people give them. Right, so it could be the gifts for having an education or the fact that parents work hard to get food on the table or that, very often, they feel grateful to mentors and to coaches – to people who, you know, without

compensation and without obvious benefit to themselves they're sacrificing for those individuals who feel gratitude. The science which you can get at the Greater Good Science Center – I know you and I have talked about this, Jim – it is so compelling that cultivating this environment, this atmosphere of gratitude – you say thanks, you express appreciation, you get your groups or your teams, or your individuals you're working with just to reflect on the opportunities we have, makes people happier over the long run, they're performing better in school; they are actually physically healthier. There are new studies, soon to come out, showing that it benefits the cardiovascular system. We found that this practice of gratitude and appreciation makes relationships stronger. It's so important for society. Great coaching brings about this sense about life that you have these amazing opportunities on the athletic field or on the court – you can use your body to do amazing things and to be part of a team that really—are things that we should revere.

04:56 - JIM:
I've got two thoughts on this. One is Phil Jackson when he was first coaching the Bulls and the so-called "bad boys" the Detroit Pistons were dominating the NBA and for several years, the Bulls could not get past the Pistons. Phil actually talks about – there were a lot of hard feelings between the two teams – but he actually talks about the Pistons with gratefulness: "We could not have been – the Bulls could not have been the great team they were had not the Pistons been in our way."

DACHER: When you really push the ethic of gratitude and you think about the opportunities that life presents you to really make the biggest in the world that you can make be it through your work, your raising a family or being a community member. Very often the real testing ground of that is in how you handle your adversaries. We get this a lot in science. Science is very adversarial; every study that I publish gets beat up by the Detroit Pistons out there – the people of science who are critiquing and challenging everything I say. As I've gotten older, I've come to appreciate those challenges. I think there is something very deep and enduring in that insight you've offered that we have to look at the *real* obstacles and even the obstacles that we feel have no principles or are morally opposed to us, we have to see those as opportunities for positive change.

JIM: We have a model for athletes. Our model for coaches is Double-Goal Coach: first goal is winning, second, more important goal, is using sports to teach life lessons. For athletes it's Triple Impact Competitor: makes yourself better, your teammates better and the game better. This is an insight that came to me pretty late, a few years ago, after all the time I've spent in sports and that is that great teams are a combination of cooperation and competition. If you and I are on the same team and we're both competing to be quarterbacks – I want to be the starting quarterback, you want to be the starting quarterback – we're competing against each other. And, if we're not competing hard against each other, the team's going to suffer. On the other hand, once you beat me out, I can sulk about it or I can take the larger…I'm going to make my team better and I can actually help you by watching what's going on in the field while you're playing.

07:42 - DACHER:
I think that very often we juxtapose competition and cooperation as mutually exclusive forces in life. In point of fact, and this is seen in all kinds of different scientific studies, you want a healthy combination of both. You want, like you said, the competition to bring out your best and sharpen your senses and your talents, and you want, ultimately, a spirit of comradery to prevail. Just to return to the Greater Good Science Center, one of the reasons we chose the other term in that name is "Greater Good" and the Greater Good is an idea that really you see in all cultures and it's written about in the Age of Enlightenment; it's really the idea that your actions are contributing to a much bigger thing than just yourself. This is really what you're talking about in terms of how effective athletes are….you get your own individual statistics, but they're about your team, they're also about the history of the game you're playing and your small part in it. I think that's part of finding cooperation in really competitive settings: to think about things bigger than yourself.

JIM: The third element of a Triple-Impact Competitor: first, make yourself better, your teammates better; the third element is make the game better by the way you compete. There's a great quote from Herm Edwards that says something like "The game is sacred. When you go out on the field, you need to remember what you're doing. Players and coaches will come and go, but the game is sacred." I really love that quote. You used the term sacred earlier. [**DACHER:** Yeah.] That can be a loaded term for some people. It could be seen as a religious thing. What do you mean by "sacred?"

09: 40 - DACHER:
How we think about what's sacred is that it's really is something that is enduring and precious and you really can't put a monetary value to it. I think, most importantly, Jim, is when people intuitively would use the word sacred like "God, this Thanksgiving dinner is sacred." –I was just talking about this with my daughter last night, in fact, how camping is sacred for us. The really important thing that defines the sacred is what you were talking about earlier which is that you are doing something places you in a broader narrative in human history. It's "Wow! I am playing the game of basketball, which is one of my favorites, and it's this great tradition that has this history, and it's played in so many ways and my brother played it, my dad played it in high school, or my mom." You suddenly locate your individual actions in this long narrative and that can come—you know it is a charged term. Because, most typically, people think of it as being a religious concept, but when you really look at how people use the concept in their own lives it has all sorts of applications: it's about camping, it's about family rituals, it's about food we eat, and sports – having the sacred game that you watch or participate in. I really think it's about situating yourself in something much more enduring than who you are.

11:27 - JIM:
That's really lovely. You used the term earlier, "the practice of gratitude" that strengthens relationships and all kinds of great things. What do you mean by "the *practice* of gratitude?"

11:40 - DACHER:
I'm teaching the science of happiness here at Berkeley and we had this massive online course that your community might be interested in hosted through EdF. What the science of happiness on topics like gratitude and play and exercise and cooperation and forgiveness really started to drill down into is the understanding of how these almost ethical or moral sentiments have social practices at their cores. They really are linked to what you might call everyday ethics. Gratitude is an ethical idea like my definition – or the field's definition of feeling reverential towards something that's given to you. That's sort of a mental state, but then you should really practice it in an everyday way. You should treat people respectfully. You should say than you. You should express when sincerely felt the appreciation for other people's efforts. You should acknowledge other people's contributions as a form of gratitude. Those are all very practical mundane things that have these benefits of gratitude. That's true of all the ethical themes that give rise to happiness.

13:09 - JIM:
I used to co-teach a class with Joanne Sanders who is the Associate Dean of Religious Life at Stanford, also a college tennis player and tennis coach on spirituality of sports. Talking about the practice of becoming ---you know, *spiritual* practices people have: praying, meditating, sometimes fasting, giving up things for Lent, etc. – and the practice of becoming a better athlete and the things you do, the things you sacrifice, the pain and uncomfortableness you go through to become the best athlete you can be—I like the idea of the same kind of practice of gratitude or becoming the best person you can be.

13:59 - DACHER:
I think anyone who has played a lot of sports suddenly sees that there are these fundamental, as you were saying, Jim, these really essential ethical challenges and opportunities that sports presents to people like the idea that we can transcend physical things. Yeah, the body takes its hits; the first noble truth of Buddhism is there is suffering in life, but out of that suffering you gain wisdom and compassion. I personally learned a lot of that, not only growing up in a very poor area of California, but also the physical suffering that sports can cause and how you become a better person out of that. Alongside the sense out of sports to be grateful and to practice it on the athletic field, and also the idea that—I mean, this is where a lot of kids first learn how to be humble. I'll never forget my first little league baseball game we lost to the Buddhist church team 53 to one! It was like, "Wow! I am anything but invincible!" I appreciate all of the losses I've had as exercises in humility and how to bounce back.

15:36 - JIM:
You did one of the most interesting compelling studies I've ever seen with NBA teams and the correlation between physical touch – high-fiving and patting each other on the back, etc. Can you talk a little bit about that study? I just think that study is something that every coach and athlete and sports parent in this country should know about.

16:02 - DACHER:
Thank you. Scientifically, as you've been suggesting in your questions, Jim, I've been interested in...What are the small things we do on a daily basis that lift people up and make our team stronger through forgiving and through expressions of gratitude and use through use of the human voice where we express interest in what other people are saying; the way we convey respect. For some time my lab at Berkeley had been interested in touch. Touch is a very sophisticated communication system that involves your hand and hundreds of millions of cells in your skin and parts of your brain. It's the first sensory system that's online when a child is born so it's very important early in life. The science on touch, and, of course, we're talking about friendly and encouraging touch; it's really pretty remarkable. It calms stress, it activates reward systems in your brain, it makes people more cooperative, it encourages kids – if you pat a kid on the back in the classroom, that child is three to five times more likely to try hard problems at the blackboard. So it has all these benefits. As you and I have talked about, I've played 30 years of pickup basketball and high school basketball and college basketball – I love basketball! I was always amazed by the following—what I consider to be a puzzle which is: in basketball - it's actually a very violent sport in some ways – it's very physical, there are a lot of chronic, you know, you break noses, sprain ankles, crash into people – lots of contact. I don't mean violent. I mean just lots of contact. And, I was, like, "Wow! Why is there such good will on the basketball court when I play?" Thousands of games; people across every imaginable boundary feeling good will towards each other. I thought, maybe it's touch. Maybe, all this touch we have creates comradery on the court. So, Michael Croft and I tested the hypothesis, and he's a pickup basketball player too, and played pretty competitively. We coded – we took every team in the NBA; we took one game of every team at the start of the season and we coded – it took us seven months to code! – all the high-fives, and fist bumps, and chest bumps and flying hip bumps that the teams showed during the game. It was about a minute and a half of touching in the game. Then, we took that measure of how much they touched each other as a team and we predicted, later in the season, how well would they be playing in terms of offensive efficiency, defensive helping and so forth – really nice methods. What we found is that the more teams touched, controlling for whether they were winning in the game or not, how much money they were making, they were playing better basketball at the end of the year. It's also compelling we could actually chart, there were some players who touched more and made their teams better like Kevin Garnett, who was with the Celtics at the time, was this really sophisticated toucher and we could chart how it made his team better.

19:57 - JIM: Wow.

20:05 - DACHER:
Athletes know this and I've had so many athletes come to me, and coaches – I just talked to coaches from Florida…you know this! And you know like that moment where you could put your hand on your athlete's shoulder and just, sort of, get them to have the right perspective on a challenging moment in the game. I think it's a fundamental moment that is aided by touch.

JIM: Yeah. That's amazing. What would you say to people who would say, "Well, correlation is not causation and of course the teams that are winning are going to touch more?"

20:47 - DACHER:
There are two things that I say. One is in the study that we did, it is what is called a longitudinal study, so we look at touch at the beginning of the year, we predict how well teams are playing at the end of the year, and then we control for: were they winning in the game? Were they expected to be a strong team at the start of the season? And, how much money were they making? We're controlling for variables that would influence how much they touch. When you take all of those influences out you still see this benefit of touch. The second counter is the lab evidence where, that I've partially reviewed, which is experiments; if you have someone touch a participant or not, that participant who's touched in a cooperative way is more cooperative, they are more likely to volunteer, they feel less stressed, they are better at certain kinds of tasks. Those kinds of evidence start to help us tell a plausible story.

JIM: Our mission is with youth sports, high school and youth sports. What would you say to high school coaches, to youth coaches? What can they do to get their players to be appropriately touching each other more? I think you've been quoted as saying that that kind of touch actually gives life to individuals and to a team. What would you say to coaches about how they could take advantage of this study?

22:31 - DACHER:
What I would tell coaches is that touch is this incredible language of comradery that organically develops in sports. It varies from sport to sport. Like any sort of practice that we've been talking about, I would… A) I would encourage coaches to be really powerful role models, just to, kind of, create a very intelligent language of touch within the team. And, I would encourage a playful approach to it, just making it a part of the team's identity. You know, specific patterns of touch and fist pumps and things like that. You know, I teach this in more complicated settings; I teach it to workplace organizations where it's really interesting, Jim. They immediately—I say, "Now, I'm going to tell you about the science of touch and how it makes teams stronger, more cooperative, healthier, and better performers." "Well, "we can't touch each other at work," and I'm like "well, but what happens?" and they say, "Well, we all hug or fist bump or high five." You just want to become smarter practitioners of the language.

JIM: Yeah, I love that. It's an incredible language of comradery: that is a great, great description. You've done some research about awe and how that motivates attachment to leaders. Can you talk a little bit about that?

24:19 - DACHER:
We've gotten interested in the feeling of awe, which is when you feel that you are in the presence of something that's bigger than you or your life. And it's something that you don't immediately understand with your current knowledge or understanding of the world. Very typically people will feel it, you know, when they see the giant Sequoia trees

or they hear an incredible piece of music or at a political event or rock concert. I love this form of awe, which is where they see somebody do something noble that just astounds them. Like, "My god! That person just gave away a whole bunch of money that helped this cause." And, we started with the idea that awe is a very interesting part of the human emotional repertoire because, unlike a lot of impulses and drives, what awe does is it makes you a better community member. It, I believe, came into our evolutionary story to help humans sort of be strong group members, which was essential to our evolution and our survival. And the data, Jim, are incredible, which is we're finding little bursts of awe – say, you're out in nature around spectacular trees or you are—we've studied inner-city kids who go whitewater rafting with the Sierra club, or you are around a giant T-rex skeleton, things that are big and amazing – those brief experiences of awe make people more charitable, more kind, more cooperative; they make them more humble, more interested in other people; they perform better on scientific tasks, and their immune system looks stronger. We're really excited about the power of awe as something to think about as a culture.

JIM: How does that relate, then, to leaders who want to get great things done?

26:41 - DACHER:
It's really interesting. Coming out of the leadership literature, I think there's an old idea of leadership which is "I am the charismatic leader, charismatic coach that will awe my individuals into successful performance." And, in point of fact, there are a lot of new data coming out by people like Cameron Anderson at Berkeley that…when we act in this domineering awesome way, the teams we lead are actually less effective. I think the challenge of leadership is to give the individuals you're leading the sense that really it's the team is awe inspiring, it's the community or, like we've been talking about, or the sport that is really what triggers these beneficial feelings of awe. That requires a different leadership approach; it's a little bit more humble, a little more other-focused. I think it has rather counter-intuitive implications for how to lead effectively.

JIM: Since you're a huge basketball fan, I assume you've been watching March Madness.

DACHER: I have.

JIM: Anything happen there that you would be in the category of awe-inspiring?

28:16 - DACHER:
Well, you know, I used to teach at Wisconsin and my friends who are Badger fans are pretty awe-struck right now. I think they are one of these classic examples of, in a way, what we've been talking about which is a team—a team, first, that is profoundly a team where the sum of the parts is bigger than the individuals. They are participating in a pretty deep philosophy about basketball. You and I have been talking about what is it about the team and the sport that is the set of principles that guide your play and I think the Badgers have that. I think they're an awesome team for this Final Four. We'll see how they do against Duke. [**JIM:** Tonight; yeah.] It's a pretty inspiring story.

29:18 - JIM:
Do you know Andrew Harrison from Kentucky – Kentucky, I saw it…they were really just a fun team to watch through the season. They really played together; they have all this talent, but they really bought into the team. Andrew Harrison, I think, reflecting some disappointment made a comment about Frank Kaminsky for Wisconsin. I hadn't thought of it before, but your term of awe I thought immediately Harrison – he didn't hedge on his apology; he just apologized. He called Frank Kaminsky and Frank said it's over, he apologized. I just thought that was a really lovely exchange. All of us can be in a situation where we're going to say or do something under pressure that we'll feel embarrassed about later. I just felt the way both those players – one from Kentucky, one from Wisconsin – responded was really lovely.

30:17 - DACHER:
I agree, and I think that, I mean, as all the basketball players out there…they know there's a special language on the court of trash talking and so forth that has a positive edge to it in some ways. I think that was really the driving force of that slur and I agree, I mean…think about what those guys did and all the pressure they were under. There's really lots of money at stake, tens of millions of people watching and for him to immediately take responsibility and call him and apologize—I wish other leaders in the world demonstrated that kind of ethics. I was impressed, too. Completely.

31:07 - JIM:
I went to your website yesterday to prepare for this conversation and one of the things on there is about self-compassion. I think there's an idea that the way you get better is to be really hard on yourself. I don't think the research shows that. Can you talk about that?

31:32 - DACHER:
It doesn't. The research shows that if you are really convinced that you can be perfect and that you can excel in these ideal ways in academics, in your personal life, in your emotional life and in sport that creates a state of anxiety. When you bump into the inevitable failures of life where you don't do as well as you thought people become ashamed. It also can create a feeling of disengagement from the activity if you really are hard on yourself and always seeking perfection. The literature on self-compassion…it's really back to some of the things that we've been talking about, Jim, and it's a really good question you ask which is self-compassion is about accepting your pains and your failures. For athletes, it is really important to embrace losing as just one instance where life presents challenges. It's really important to be self-compassionate to situate yourself in a larger narrative about your life; to situate the moment in a larger narrative. Right now, in my scientific career, when I get bad reviews – and I've gotten them, I have papers rejected or grants rejected, have an off-day teaching – I have to take that moment and situate that loss, if you will, in a larger narrative about who I am as a scientist and a professor, and somebody who is a citizen. And, then you really have to just not judge your momentary efforts in a kind of a self-relevant way and just treat them as part of the game. I think there are enormous lessons about that science for athletes who…you know the D1 athletes here at Berkeley and I know, all over the

country, there is a lot of pressure on these young people—just remember to treat yourself kindly. Most typically, my hunch – and you probably know more, Jim – is the great performers in sports have that quality of like, "You know, it's just a loss and I've got a long career to do great things."

34:24 - JIM:
Yeah, Dacher, that's beautiful. I was at a seminar a while back and somebody said – and I wrote it down immediately – he said, "Gentleness with self is the gateway to courage." I was thinking about the old idea you beat up on yourself and that makes you tougher; I think what it often does is it makes you not try hard things.

DACHER: Yeah, I agree. Absolutely. The science isn't there yet, but I think your hypothesis is absolutely correct which is if you don't take yourself so seriously and you are kind to yourself and know that things change – it gives you courage to try tough things, to try hard shots or whatever it is. I think you're right that self-compassion is the pathway to courage.

JIM: Dacher, this is an incredible interview and I'm so glad that we're going to be able to share it with thousands of people out there. A couple more questions; one is: I've become really aware recently of just how much stress – you mentioned this about Division One athletes – but kids in really elite high schools in Silicon Valley who seem to have everything going for them and are just under incredible stress. How can coaches – how can they help kids deal with that stress?

35:59 - DACHER:
The data are pretty clear, Jim. Our teams today – and I have two teenage daughters – they are working harder than I worked when I was a teenager thirty years ago, 35 years ago. They are learning more; they are doing harder work academically – don't believe all the hysteria that kids today are smarter than people were 34 years ago. They are playing sports harder and at a more competitive level. Then, obviously, the economy is a little bit tougher; it's harder to get into college. It's a very familiar story in American society. As a result of that, when you look at the broad, historical data, teenagers are more stressed today than they were 30 years ago for very good reasons. What coaches can do – and it's so interesting because, as any parent will tell you, teenagers need to separate from their parents because they are starting to grow into young adults. They are not going to get as much wisdom from the parents as parents would wish and they will look to, very hungrily, other adults in their lives like a person in a church or person in their community or friends of their parents or coaches. Kids get profound lessons from coaches. I think that the material that we've been talking about is fundamental to teaching kids to handle stress. What coaches can do is – they really should define this as "cultivate some gratitude." Secondly, is practicing kindness, which we've talked about here as a narrative. You know, creating in sports a way of forgiving or saying you're sorry or sharing. A third one that we haven't talked about is the mindfulness literature. There are really easy secular ways for coaches and for teachers like myself to have the kids stand together, have them breathe a little, reflect on where they are, be quiet for just a moment – even 30 seconds – we know scientifically that has

stress-reducing benefits. You hit upon it earlier…two final things – I'm sorry to go on about this, but teach kids how to play and laugh. I think every practice should have some laughter in it. Every family dinner should have some laughter and every class should have some laughter. And, finally, is the thing that we've been talking about earlier today which is narrative and sacred. Just remember, help kids know that the tough stuff they're going through right now – the 16 year old or the twenty year-old – stresses and the like: it's part of a long life and a long story that has a lot of good plot twists and developments.

39:27 – JIM:
Wow. That's beautiful. I'm glad you brought up mindfulness. We have a number of fantastic practitioners of sports psychology on our National Advisory Board along with you. Charlie Maher who is with the Cleveland Indians, one of my favorite people; he has a phrase – how did he help the Cleveland Indians? How did he help baseball players become major league players? His phrase is "Mind in the moment." I just thought that's a great way of talking about mindfulness. If you can't control your attention, you probably can't do much of anything. Really seeing what used to be sort of new age-y ideas about mindfulness and now seeing what sports psychology is doing coming together these sort of ancient wisdom kinds of things being proven out in the high-stress world of elite sports.

40:31 – DACHER:
It's funny, Jim. I've been teaching mindfulness for a long time – the breathing practices and directing your attention. Sometimes I teach it to young boys or skeptical audiences, and I would say, "Take a look at the person who is shooting the key free throw or the person three into the pitch on the base in the softball mound or the baseball mound. If they're going to do well they're going to have a little bit of mindfulness in there. Even if they don't call it that, they're going to breathe; they're going to settle down; they're going to think about their body and the process." There's mindfulness all over sports. It's a great thing that coaches can teach kids.

41:16 – JIM:
Last question, there are two parts to it. If you could recommend one book for coaches to read and then I'm going to ask you the same thing for athletes. Anything come to mind?

41:33 – DACHER:
Well, there's your book

41:35 – JIM:
Born to be good.

41:37 – DACHER:
First of all, I would tell them to go to the Greater Good Science Center because – but I have some books that I would recommend. The Greater Good Science Center, as you know, Jim, we've spent 12 years cultivating writers to write thesis about this science we've been talking about today, they are not academic, they are for every interested

human being. We've just found that those essays on gratitude or cooperation or altruism or touch or kindness or compassion or mindfulness really is viral and that I can honestly recommend those because they've been in books. So, that would be one. I think for students who – for athletes who are really grappling with stress, I would read Robert Sapolsky's "Why Zebras Don't Get Ulcers." What the athletes will learn is stress is very natural, part of our nervous system. There are certain things that make us too stressed like ruminating about things or feeling threatened and then there are things that we can do to convert that threat into an empowering sense of challenge. So I would read that book for the athletes. I wish my new book on power was out because that would be a good one for coaches, so maybe we can talk about that some other time.

43:20 – JIM:
Let's plan on doing another podcast when that book comes out.

43:24 – DACHER:
That'd be—I'd love to. I think, for coaches, they might want to read Carl Dweck's "Mindset" book, which is just about teaching people how to think about growth in life and change and positive development. I think that could be a very powerful tool.

43:49 – JIM:
Thank you so much. I want to just do a shout-out to Tom Hornaday . Tom and his wife, Ruth-Ann were financial founders of your center and Tom was the one who connected you and me some time ago. Thank you for the great work you're doing and thank you so much for being part of the Positive Coaching Alliance movement.

44:16 – DACHER:
Well I learned so much from sports and it's an honor to be a part of your team, Jim. It really is. And thank you to Tom and Ruth-Ann.