

# The Evil Russian Speaks—Part 1

## An Interview with Pavel Tsatsouline

by Chris Shugart

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"Get on the floor," the Russian said. He did not say please.

"Now? *Here?*?" I asked.

"Yes, comrade."

"Uh, okay."

"Now, I want you to do push-ups, but I want you to turn your hands like this and breathe like this...."

So it began. Over the next hour, I learned to up the intensity of my squat, to instantly jack up the power of my bench press, and to increase the speed of my punch. No, I wasn't in some dank Russian gym and I wasn't in an elite European training center. I was in the lobby of the posh Hyatt Regency hotel in Columbus, Ohio, interviewing up and coming strength guru, Pavel Tsatsouline. It was the first interview I'd conducted that left me sore the next day.

I first heard about Pavel "The Evil Russian" Tsatsouline from those involved in the martial arts community. Many were breaking through their stretching plateaus by using his techniques. I picked up a few of his books and videos and was immediately struck by Pavel's in-your-face ideas about strength training. Frankly, I'd never heard of most of the exercises he'd written about and immediately disagreed with at least half of what he had to say. In other words, I was intrigued and had to learn more.

Pavel isn't a big guy, nor does he want to be. Wiry, functional strength and power is his game. His body is more Bruce Lee than Arnold, and he's more interested in training for combat than training for the beach. As a former physical training instructor for Spetsnaz, the Soviet special forces, his job wasn't to make them pretty, but to make them into efficient killing machines. The fact that they developed rock hard physiques was almost a side effect.

Pavel holds a Soviet Physical Culture degree in physiology and coaching and was also a nationally ranked athlete in the ethnic-strength sport of kettlebell lifting, a practice he's now attempting to popularize in America. These days, Pavel is proud to say he's a "capitalist running dog" and is living the good life in California with his American wife. Pavel spends his time writing books, making videos, holding seminars and training American SWAT team members and other law enforcement professionals.

I'm just glad he's on our side.

**Testosterone:** Pavel, you've written that bodybuilding is the worst thing to ever happen to strength training. What's up with that?

**Pavel:** I was quoting Dr. Ken Leistner and referred to the "new" bodybuilding, post Arnold and Franco. The stuff they do today in the gyms is more cosmetic surgery than strength training. The emphasis is on the hypertrophy of everything but contractile proteins. A typical dude with eighteen-inch pipes is a big joke on an arm-wrestling table... provided he has enough nerve to test his virtual muscle in this manly art.

Strength training for sports does not rely on sarcoplasmic hypertrophy, unless you are a sumo wrestler or a football lineman. It should focus on myofibrillar hypertrophy through many sets of low reps and, more importantly, on a host of neural factors: motoneuron excitability, neural drive, Golgi tendon organ disinhibition, etc. What bothers me is when newbies who come to the gym to up their strength for, say, Alpine skiing, are told to do three sets of ten for lunges, leg presses, leg curls, and other fluff instead of simply hitting five sets of five for squats or deads.

**T:** You're pretty quick to call out bodybuilders and their "fake" muscles. What's so bad about being big?

**Pavel:** It's a matter of preference, but in some activities super-sizing is inappropriate. Middleweight weightlifters are the strongest relative to their bodyweight. You don't see many 250 pound rock climbers because, well, they're all dead. As your bodyweight increases and you get heavier, your relative strength gets compromised more and more. Take a SWAT officer who has to carry 45 pounds of gear plus his bodyweight. If he weighs too much, he won't be able to get over a fence or climb into a window fast enough. So where relative strength is an issue, being too big is inappropriate.

If you're a lineman or a sumo wrestler, being big can make sense and if you do it for cosmetic reasons, then it's perfectly fine. Otherwise you must be very selective about what you are building. Rock climbers have a saying: A good climber has the lats of a flying squirrel, Popeye forearms, and the legs of a starved chicken. It's functional, for *them*.

**T:** So you're more about functional, real world strength?

**Pavel:** You bet. A friend fascinated with special warfare showed me his copy of what was supposed to be a Navy SEAL memoir. He pointed out a photo of frogmen boarding a ship. The caption read something like, "My guys can bench press 500 pounds because they have to."

If you have any sense you should ask two questions: 1) How many of your guys does it take to bench press 500 pounds? and 2) How is the bench press supposed to help you with any of

the physical demands of your duty? One of the top tactical officers in the state of Texas, a Brit named Mark from SAPD, kicked butt at the last state SWAT competition. The man can knock off twenty-some pull-ups and does rock bottom one-legged squats with ease. How much does this officer bench? He tried it once and did 225. Not a bench press to write home about. But that it is the point.

Unless you are training purely for looks, you must focus on the strength needed for your sport, job, or lifestyle. When I got the contract from the state of New Mexico to develop new strength tests for their select Special Weapons And Tactics Teams, I did not contemplate the bench press or curls, but enforced ten pull-ups, ten rock bottom one-legged squats, and ten hanging leg raises. Everything performed with a forty-five pound plate, the weight of standard tactical gear. For pull-ups and leg raises the plate hangs on a waist belt; for one-legged squats the officer holds the plate in front of him.

**T:** Interesting. What can you offer bodybuilders?

**Pavel:** I can show them how to get stronger immediately by training their nervous systems. The best bodybuilders, when you think of Ronnie Coleman, Dorian Yates, or Arnold, they're very strong. Even if you don't feel like getting strong for the hell of it, you do not get the muscle density and muscle tone without heavy training. Besides, when you are stronger you are able to use more weight in your bodybuilding exercises. Will you make better gains curling 95 ten times or 115 ten times? It's a no-brainer.

**T:** Okay, so how are you going to accomplish this?

**Pavel:** Through various neurological phenomena. Let me show you something, Chris. Squeeze my hand.

**T:** Okay. [I squeeze his hand as hard as I can.]

**Pavel:** Now, tighten your abs, squeeze your glutes and crush my hand again. [I do]. Okay, what's the difference?

**T:** Did I squeeze your hand harder the second time?

**Pavel:** Much harder. It seems preposterous to a bodybuilder that clenching your cheeks and bracing your abs will strengthen your grip, but that's the way your body works. What I teach is just the opposite of isolation. Isolation is impossible anyway. There is something called *irradiation*.

Make a fist, Chris, a tight, white-knuckle fist. Notice how the tension spreads into your biceps, shoulder and chest. So whenever the load is meaningful, the tension will spread elsewhere. It's going to happen. If you try to fight it, you'll only hurt yourself.

Quotable Dr. Ken Leistner compared a bodybuilder to "a collection of body parts". That's really the problem. Used to "isolating" and doing exercising sitting and lying down, they have no knack of integrating their body as a unit. These guys walking around the Arnold Classic may be able to bench press 400 pounds, but most can't tackle a hundred pound metal ball, like one of my kettlebells. Some can't even clean it to their shoulders and most can't press it overhead, at least not without horrendous back bending. They just don't have the core strength and they can't integrate their whole body in the act.

Only by using those Malibu Ken and Barbie weights can you truly isolate. So you might as well decide to use your core muscles, brace your abs and your glutes and go the anti-isolation route. Bodybuilders may think that will take away from the contraction of the target muscle.

We have just demonstrated with the grip test that this is not the case. Whenever you intelligently contract other muscles — your glutes, your abs, your diaphragm, and if you're working the upper body, your grip — you automatically increase the intensity of the contraction of the target muscles.

**T:** Haven't you written that squeezing the bar really hard when benching can increase your poundage?

**Pavel:** You can expect ten pounds within a workout or two. This works with any upper body exercise, including curling. There is one provision — you must do it either when you keep your reps very low, like five or less, or in the very last reps of a set. If you can normally do fifty push-ups, you can do five more using this technique. Get on the floor.

[The next thing I know, Pavel has me pumping out push-ups right there in the lobby. Since this was during the Arnold Classic, the lobby was filled with fitness babes. I tried my best to impress. Pavel showed me how to grip the floor as hard as I could with a claw-like grip, like I'm trying to twist a piece of it off, and contract my glutes and abs while doing the movement. Sure enough, I immediately felt stronger and was able to do more reps.]

**T:** [Panting] This is great stuff.

**Pavel:** By using extra muscle groups in a very intelligent fashion, you do not take anything away from the exercise. You increase the stimulation. Think of it as cheering versus cheating. You'll immediately get stronger. For example, flex your wrists during curls and you'll get even more stimulation to the biceps. And by doing all this you increase the tension which protects the joints. You end up getting a great workout with fewer exercises. You can do a curl and work the upper body with just a curl alone using these techniques.

**T:** Tell us about breathing and training.

**Pavel:** Russian scientists have studied the so-called *pneumo-muscular reflex*. Here's how this reflex works. Think of your muscles as loud speakers. Think of your brain as the CD player. The volume control is located in the abdominal cavity. These special baroreceptors sense the pressure. Whenever the intra-abdominal pressure goes up, it's like turning up the volume in your stereo and vice versa. So no matter how hard you're trying, if you decrease the intra-abdominal pressure you'll be immediately weaker.

When I teach people to do the splits, I teach them to minimize intra-abdominal pressure with a sigh of relief. But for strength you want to maximize the intra-abdominal pressure, that is, if you do not have a heart trouble or high-blood pressure. One reason why some martial artists exhibit such tremendous power is because they understand the importance of intra-abdominal pressure. They have a different way of putting it, but that's what they do. The loud "Kiai!" that you make when you strike the target increases the pressure in the abdomen and immediately amplifies the power. This is how a 130 pound man could strike with the force of a heavyweight boxer.

When I started arm wrestling, I was told by a professional in the sport, "Don't let me hear you breathe." This is because the moment you exhale, you'll get beat. Arm wrestling, by the way, is a very sophisticated sport in terms of incorporating all these techniques of using the body efficiently.

As Marty O'Neal, one of the top arm wrestlers in the Midwest, said, all of us have been beaten by somebody who doesn't look like anybody. In arm wrestling you find that more than in any other sport because these people really understand how to tap into their hidden reserves and use their muscle software.

**T:** How can we modify this karate breathing and apply it to weight training?

**Pavel:** You have to learn to maximize this internal pressure but time it with exertion, in martial arts lingo, "match the breath with the force." One way of doing this is to pull up the rectal sphincter to increase the pressure further, take a normal breath — 75% of maximal breath is usually recommended by Russian scientists — and then you expel the air at really high pressure with your teeth pressed against your tongue: "ts-ts-ts!" Make sure not to release all your air, you need it to protect your back and joints.

In some exercises you have to modify this. For example, in the bench press your rib cage would sink in, your shoulders would come up, and you would die about three inches off your chest. So in the bench, you wait until you reach your sticking point and then power breathe. In squats and deadlifts, of course, you have to hold your breath because you can't afford to lose the air; you need to stabilize your spine. If you are really hard-core you may apply a highly sophisticated "reversed breathing" technique to your squats and deads. If you are interested, pick up an April 2001 copy of *Powerlifting USA*.

**T:** Anything else on reflexes and bodybuilding?

**Pavel:** Think of them as muscle software. Being a bodybuilder is like having a powerful ThinkPad computer and only using it as a word processor. Think of a little 130 pound martial artist. This guy could break a stack of bricks. A bodybuilder who weighs twice as much would go to the hospital from that. Now, the bodybuilder may have a lot more hard drive, so to speak, but he's computer illiterate. He hasn't learned how to program his muscle software.

If you learn how to run your software — the pneumo-muscular reflex, irradiation, successive induction, etc. — you immediately get a lot more out of your computer, regardless of whether you're a lifter, an arm wrestler, or a bodybuilder. You don't have to sacrifice the function for the form. You can train this way to get big very fast, and you encourage myofibrillar hypertrophy, not just blowing yourself up like a balloon with soft, useless tissue.

**T:** So when you apply all these strength-training principles to bodybuilding, you can lift more weight, which means you get bigger, faster?

**Pavel:** Yes, and do it in much greater safety because your body is super stable under the load. That also means you can get bigger faster because you don't have to nurse injuries and resort to Barbie exercises.

**T:** Gotcha. Let's get into your history a little bit. Where did you grow up?

**Pavel:** I grew up in Latvia, one of the former Soviet republics, in the city of Riga.

**T:** Were you involved with sports?

**Pavel:** Martial arts. And then martial arts brought me to kettlebells, which happen to be a spectacular conditioning tool for any combat sport. I received a degree in sports science and physiology from the Physical Culture Institute and I did a stint with Spetsnaz as a PT drill instructor. What I do right now in the United States is the same thing, only kinder and gentler. [chuckling]

**T:** When did you come to the States?

**Pavel:** I came to the US in the early 90s. It was a time when you could get out of Russia, barely, and could still get into America. I started out doing all sorts of odd jobs, bouncing at a night club, selling hot dogs, etc. I started an unsuccessful import/export business with friends;

I just didn't know a thing about it. I finally realized I'd better do something that I know about. So I rented an old bank vault and started a personal training business.

**T:** A bank vault was your personal training facility?

**Pavel:** Yes, an old bank vault with submarine doors and bars. You could hear the screams echo and the dropped deadlifts nicely. I did it for awhile in the Midwest along with some seminars. Last year my wife Julie and I moved to LA. Today I train SWAT and special response teams for various government agencies and write.

**T:** How did you get involved with writing books and articles?

**Pavel:** John Du Cane walked into one of my seminars one day and asked if I wanted to do a book. So we did a stretching book. Things started getting better and I got to know more and more people, mostly in the powerlifting community. I got interviewed by *Powerlifting USA* and wrote something for them. Then I started writing for *Milo* which was totally down my alley.

**T:** What's your current involvement with EAS and *Muscle Media*?

**Pavel:** Vince Andrich asked me to design the training program for the new EAS Supplement Review and I just started writing for *Muscle Media*.

**T:** They could use you. You were a top kettlebell lifter in Russia, correct?

**Pavel:** I was nationally ranked. Competitive kettlebell lifting involves one arm snatches and clean and jerks for repetitions. It's what they call a "military applied sport." They learned that a combination of high-rep kettlebell snatches and clean and jerks improved many motor abilities simultaneously. They measured strength by the three powerlifts and grip strength and it all went up. They measured strength-endurance with pull-ups and dips; it went up. They measured runs at various distances, sprints, vertical jumps, you name it. They all improved.

Ironically, in many instances the numbers went up more than with specific training. They had a bunch of college subjects go through the typical Soviet military PT program based on standing broad jump, pull-ups and a middle-distance run. One group did nothing but kettlebells. This group outdid the first group even though they didn't practice the actual exercises.

**T:** You mean those that did only kettlebell work beat out those actually practicing the events?

**Pavel:** Yes. They didn't practice pull-ups or anything, but the kettlebell group improved in those exercises. Can I explain it? No. But if something is in your face, even if you don't understand it, you'd better take it and run with it.

**T:** Fascinating. What's your stance on steroids?

**Pavel:** Obviously the Soviet teams have done plenty of the stuff. My background is in the military and steroids are not something that we used, although we did take stimulants on rough occasions. Personally, I'm opposed to steroids. No matter how knowledgeable you are, when you are messing with your endocrine system you have no idea which straw you are going draw in a long run. Any mathematician who studies non-linear dynamics will tell you that.

**T:** You write a lot about training men for combat. You say that a warrior doesn't have time to warm-up when someone is coming at him to kill him. So what did training men for war teach you about training the average person who just wants to be in better shape?

**Pavel:** What it taught me was that an average person has a much greater capacity than they think they have. For instance, when I give a seminar to the general public, I have these guys that come out of the seminar with about 30% more strength than when they went into it. They just learned to tap into their strength reserves much better.

I also learned a lot about psychological conditioning. If you believe you can do it, then it's something you can do and vice versa. If you believe that a warm-up is going to prevent an injury, then that's what's going to happen. This is the same thing as believing that if I don't wear my magic socks then I'm not going to win.

In the Russian military the alarm sounds in the middle of the night. The sergeant strikes a match and before it burns his hand you had better be dressed and on your way to get your gear and ammo. Warm-ups aren't appropriate for the military.

Ditto for law enforcement and other government agencies. These people do not have the luxury of a warm-up. Take the US Department of Energy, one of my clients. If a bad guy is going to try to hold up a nuclear power plant you can't tell him, "Sorry, I've got to warm up first."

**T:** So what do you think about warming up before a workout for the average guy? Is it overrated?

**Pavel:** You bet. Pyramiding with high reps and light weights or riding a bicycle is a waste of time or worse. You may progressively practice your technique, e.g. pulling 315 x 1, 405 x 1, and 455 x 1 before deadlifting five wheels, but do not abuse it. Motor learning geeks know that performing a skill out of the blue, a so-called retrieval practice, is very effective for learning. My friend Dr. Judd Biasiotto squatted 600 at the bodyweight of 132. He did this a couple of minutes after waking up and without any warm-ups.

Occasionally, usually in competition, you could improve your immediate performance by just *supporting* a 110 to 120% weight [of your max] a minute before going for the max, greasing the groove with the wave loading Charles Poliquin and Ian King have been writing about. But do not make a habit of it so your body does not get "spoiled."

**Part 2 of the interview will be posted next week.**