

Dr. Rod Havriluk is a world renowned biomechanist who specializes in swimming technique instruction and analysis. He serves on several boards including the **Counsilman Center for the Science of Swimming** and the **International Swimming Coaches Association**. Rod is a featured monthly columnist with Swimming World magazine. He has worked with thousands of swimmers and triathletes, including Olympians and world record holders

Dr. Havriluk has been a speaker at many conferences, including:

- American Swim Coaches Association
- Australia Swimming Coaches and Teachers Association
- Biomechanics and Medicine in Swimming
- Federation Internationale de Natation
- International Olympic Committee
- International Swim Coaches Association Summit
- USA Swimming
- US Masters Swimming
- US Swim School Association

He has conducted swimmers and/or coaches clinics in Aruba, Australia, Bahamas, Bahrain, Barbados, Brazil, China, Curacao, Ecuador, England, Grand Cayman, Greece, India, Lebanon, Puerto Rico, Saudi Arabia, Serbia, St Vincent, Trinidad, Turkey, and the USA.

Rod Havriluk Interview (2015) with Dr. John Heil

Rod has been honored by Swimming World Magazine as one of the "Top Ten" most impactful people in swimming for 2015. In the interview that follows he talks about his personal background in swimming and the critical role of sport science in coaching

How did you get your start in swimming?

I swam competitively since I was 7 years old, then through high school and college, and have continued with master's competition. My most recent race was an open water swim here in Florida.

What has kept you in the pool?

First of all, swimming keeps me healthy. But I also enjoy the positive social environment of my training group. I have been swimming with some of my group for decades!

What drew you to sport science initially?

I started coaching in the summers during college. After reading and applying Counsilman's *Science of Swimming*, I experienced for myself that science actually helped me swim faster. And I realized that science could also make me a better coach.

After returning from a stint with the USMC, I decided to pursue a coaching career. I started graduate school in exercise physiology and worked as an assistant coach at FSU while completing my Master's. I earned my doctorate in biomechanics at Indiana, where I had the honor of working with and learning from Doc Counsilman.

My research since those early days has made it clear that science is the best path to improving technique.

How did you get started with your Sport Science career?

After graduate school, I continued applying science to my coaching. Over time, I gradually transitioned into a full-time sport scientist, realizing I could have a greater impact that way. I moved forward with a combination of hands-on biomechanics consulting, swimming research, and technology development. This evolved into my personal business, Swimming Technology Research, which I continue to this day

As a sport scientist and former coach, what is the main message about science you would like to get out to coaches?

Technique lies at the core of success. Proper technique helps reduce injury by minimizing the stress of repetitive motion, especially on shoulders. I have recently concluded that swimmers need to change the way they train, with a systemized approach to improving technique that includes components of deliberate practice.

What does deliberate practice mean and what is its value?

Fundamentally, it means concentrating on technique while training, actually striving for as close to 100% concentration as possible. There are about 8 components to deliberate practice which include, among others, carefully structured activities and frequent coach-swimmer communication.

How does the training need to be different?

First and foremost, skill learning needs to be approached in a systematic fashion, which is consistent across all the coaches on a team. Second, the coach must balance training time allocated to conditioning and technique. An important but typically overlooked element of deliberate practice is solo practice. This helps a swimmer's concentration by limiting distractions common on the pool deck, and provides a swimmer with a better opportunity to give his or her full and undivided attention to technique.

What is the main message about sport science that you would like to get out to coaches?

First of all, I'd like to acknowledge that coaches have an incredibly difficult job! But I'd also like to say that sport science can make that job a little easier -- and certainly provide some additional tools and resources to help them succeed. Swimmers are the main beneficiaries when coaches are willing to check any conventional approach against the evidence that comes from the science.

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