



RESEARCH TO  
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## SPORT SCIENCE: THE SEARCH FOR SOMETHING TO BELIEVE IN

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Scientists are often curious, capable and ambitious. Whereas decision making is often influenced by emotion and tradition, scientists are trained to achieve insight after reviewing data and considering prevailing theories. In sport, coaches and athletes frequently benefited from scientists that have tried to understand what it takes to win. In Sport Science, many focus on the research finding, the intervention or novel methodology. However, it is possible that the pursuit of understanding may contribute to sporting success as much as the novel intervention. It is possible that one of the most powerful contributions a scientist can make is helping coaches and athletes believe in what they are doing.

Dr. Frank Cotton is a great example of an early sport scientist. The ‘Cotton Aerodynamic Anti-G Flying Suit’ to assist fighter pilots in WWII, shaving body hair to improve Olympic swimming performance in the 1940s, and design and construction of stationary ergometers to evaluate fitness in the 1950’s are all attributed to Dr. Cotton. Decades before heart rate monitors were commercially available, Dr. Cotton was using a large wall-mounted clock and a special “extended” stethoscope to carefully monitor post-effort heart rates, training load and performance in elite Australian Swimmers. Recognized as the father of sport science in Australia, Dr. Cotton appears to have spent a career searching for a greater understanding, a competitive advantage... something to believe in.

In the early 1900s the term “sport science” wasn’t popular. Instead, historical accounts suggest that scientists typically partnered with coaches to establish thoughtful preparation programs. Little did the coach know that the process of meticulously planning, testing and refining the training program may have been as important as the program itself.

Sport scientists can find themselves working long hours. Unfortunately, isolation and frustration can interrupt the ability to become excited about a theory or a methodology that is worth believing in. In addition, distractions can make it hard to establish meaningful connections with athletes. To make matters worse, many talented sport scientists have had to watch in horror as one of their athletes become enamoured with “gurus” and “self-proclaimed experts” that possess nothing more than charisma, flashy training aids and an enthusiastic sales pitch. As scientists try to gain understanding, others motivated by money and fame are prepared to do whatever it takes to get the athlete’s “buy-in” – even if it means ignoring facts and logic.

As the sport scientist contemplates the best way to contribute to a sporting program, it is worth considering that research and discussions with other scientists can help establish preparation strategies that are worth believing in. Most importantly, once the sport scientist believes in what they are doing, they can bring authentic excitement, innovation, technology and purpose to an athlete’s preparation. When great insight, leads to great programs for outstanding athletes there is a chance that a wonderful moment will occur... the moment when an athlete starts to believe in themselves and thinks, “Oh My God – I think I could win”.

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