

The Science and Art of Coaching

MENTAL READINESS

Learning the mental aspects of racing from our elite athletes

By Dr. Suzie Tuffey, *Sports Psychology Director*

PURPOSE AND RATIONALE

The project was designed to help coaches and sport scientists better understand the mental preparation / approach to competition and training of our elite swimmers. A need exists to understand what elite level swimmers are doing mentally (i.e., approach to training, pre-race/during race thoughts, focus) that may be enhancing their performance.

Past research with elite level athletes indicates that the mind (an athlete's thoughts, focus, attitude, use of cognitive strategies, etc.) plays a role in performance. For example, in a review of the literature on characteristics of peak performance, Williams and Krane (1998) found that certain mental skills and attributes are associated with superior athletic performance. These skills and attributes includ-

ed the following: having a well developed competitive routine and plan; high levels of motivation and commitment; coping skills for dealing with distractions and unexpected events; self-confidence; management of arousal; heightened concentration; and the use of goal setting and imagery.

In another investigation, Oglick and Partington (1988) investigated the mental control and mental readiness of Canadian Olympic athletes using both survey and interview techniques. They found mental readiness to be a significant factor influencing performance. The authors also identified what they termed common elements of success that included a total commitment to pursuing excellence, quality training that included setting daily goals, competition simulation, and

imagery training, and, quality mental preparation for competition. The investigators concluded that the mental aspect of performance is essential for high achievement in important events.

Other empirical investigations (Gould and colleagues, 1998; Gould, Jackson, & Finch 1993) have come to similar conclusions, namely that mental preparation using specific mental skills and strategies is related to enhanced performance. While the importance of the mental aspect of performance is well documented, a need exists to better understand how swimmers are addressing the mental aspect of performance on a regular basis. We can potentially learn valuable information by investigating elite swimmers' approach to the mental aspect of training and competing.

PLEASE SEE PAGE TWO

VISION / To inspire and enable our members to achieve excellence in the sport of swimming and in life.

MISSION / USA Swimming is the national governing body for the sport of swimming. We administer competitive swimming in accordance with the Amateur Sports Act. We provide programs and services for our members, supporters, affiliates and the interested public. We value these members of the swimming community and the staff and volunteers who serve them. We are committed to the excellence and the improvement of our sport.



CORE OBJECTIVES / Build the base, promote the sport, achieve competitive success

CQ MISSION / CQ is published by USA Swimming four times a year as a benefit of membership for coach-members. The mission of CQ is to communicate to all coach-members of USA Swimming on the art and science of coaching and to promote the programs, people, events and services of USA Swimming.

CQ VISION / To enlighten intuitive, artistic coaches about science and inform science-oriented coaches about the art of coaching.

CQ DISCLAIMER / The views and opinions published in CQ are those of the authors and not by the fact of publication necessarily those of USA Swimming or its members. USA Swimming is not responsible for the content of any information published in CQ and such publication does not imply approval by USA Swimming of said content or any organization with which the authors are associated.

Safety of all its members is a top priority for USA Swimming. In particular, no athlete-member of USA Swimming should ever pursue any of the training or stroke techniques discussed in CQ except under the direct and immediate supervision of a certified coach member of USA Swimming.

CREDITS

Publisher: Chuck Weitgus

Editor/Designer: Charlie Snyder

Managing Editor: Tom Avischious

Contributors: Larry Herr, Suzie Tuffey, Jaci Van Heest

Photographers: Allsport Photography

Printer: Sport Graphics, Indianapolis, Ind.

MENTAL READINESS

From page one

To gather the information, in-depth telephone interviews using a semi-structured interview guide were conducted with 10 swimmers from the World Championship team with the purpose of developing an understanding of his/her approach to the mental aspect of training and competition. These tape-recorded interviews, which lasted 35-90 minutes were transcribed and content analyzed.

ATHLETE PROFILE

Ten members (five males and five females) of the 1998 World Championship team participated in this project. The athletes' ages ranged from 15 to 27 years with the average age being 20.8 years. The events swam by these athletes at the World Championships ran the gamut from 50m to the Open Water 5k. There was no consistency in terms of when and how the athletes first got involved in swimming. At one end of the spectrum an athlete noted that she started swimming "as early as I can remember" whereas another athlete did not start swimming until the age of 15. Additionally, there seemed to be little consistency in the progression of the athlete's swim career. That is, some athletes had early success and others didn't achieve success at a high level until later in their careers.

LEARNING FROM ELITE ATHLETES

The findings derived from the interviews with the 10 athletes are organized into several sections and include the following: approach to practice; competition mental preparation; influence of significant oth-

ers; and, unique characteristics tied to success. In the presentation of the general findings or themes, numerous direct quotes from the athletes will be used to help illustrate each finding and bring it to life.

Approach to practice:

The athletes were asked to talk, in general, about their approach to training. In analyzing the athlete's responses, a common theme of Quality Training seems to pervade. That is, each athlete has his/her own unique way of achieving the similar goal of quality training. The athletes described a variety of strategies, technique, or "tools" they use to bring a focus and intensity to training. Some strategies/skills mentioned included positive attitude, positive self-talk, imagery, having fun, goal setting, focusing on technique, and approaching practice as a race. One athlete talked about Friday workouts that he approaches as he would a competition in terms of his pre-event physical and mental preparation which he feels holds him accountable for his training. Another athlete asks herself every day before getting in the water "what are you going to do today to make yourself better?" What a great strategy to motivate oneself to train hard and to work with focus and intensity! The following quotes illustrate the notion of quality training and strategies athletes use to achieve this objective:

"Training is something I struggle with because I'm not one of the fastest guys in the training pool out there, and one of the things I tell myself every day is that I want to go into each workout like it's my race at the end of the year ... so my approach to training is to just try to go into it like it's the end all-be all. I just have to go out there and get every single workout."

MENTAL READINESS

"It's a discipline. Part of discipline means a daily thing, so that you can get it down. So, one of my goals is to be able to visualize and go through a pre-race routine every day."

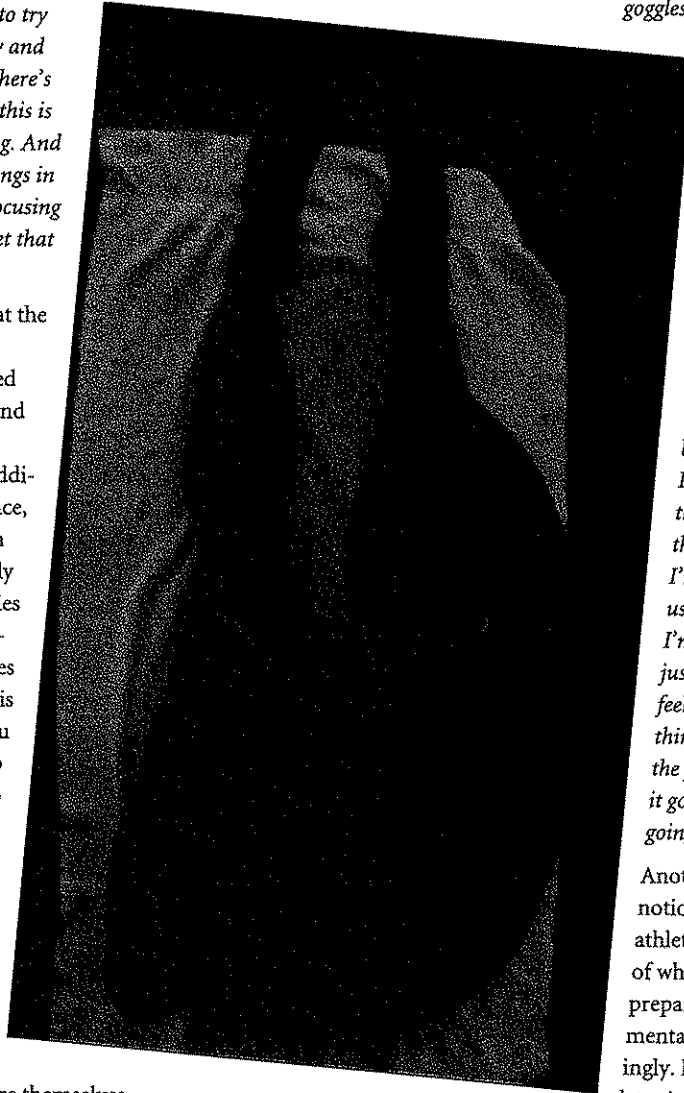
"You go in, clean slate, you give 100%, you clear your head of anything that's going on and you give 100% to that workout ... like I like to try and analyze or I like to try and articulate, you know, like here's what I think's working or this is what I think is not working. And so focusing on the little things in the workout, like maybe focusing on one or two things per set that I want to work on."

It is important to note that the athletes were different in terms of how they achieved quality training sessions and (in what quality training means to each athlete). Additionally, because confidence, in part, is derived through training, it seems especially important to have strategies in place to ensure productive training. These athletes seemed to have figured this out. Coaches, how can you help your athletes develop strategies or techniques to enhance the quality of their training?

Competition mental preparation:

One of the primary objectives of the project was to understand if and how these elite level swimmers mentally prepare themselves for competition. Each of the athletes was asked to describe in detail any type of routine or strategies they used to get ready to race. It took little thought for the athletes to describe what they did behaviorally and cognitively as they all seemed to have consistent, well-prepared approaches to competition. Sev-

eral similarities arise when reviewing these approaches to mental preparation. First and foremost, is that ALL athletes had a means to get mentally ready to race but differed greatly on how they specifically prepared themselves. This is exemplified in the following quotes:



"I swim in the lane that I'm going to be racing in and that kind of helps me. Especially during warm ups, you know, I look up in the stands and kind of picture what it's going to be like with people in them ... and just kind of getting a good feel on my surroundings and what it's going to be like during that race. And think about the people

that are going to be in that heat with me and what lanes they're going to be in and who I think I'm going to have to worry the most about. And really concentrating on my stroke and making sure I feel loose ... make sure I feel strong and that everything's kind of together. Make sure my suit's fine, my cap and goggles are fine, and you know, there are so many little things."

"I think I try and focus on the positive, stay with my routine, and stay kind of light, like I, you know, I like to try and talk about other things during the morning and like read the newspaper. That's the best thing for me to do."

"The thing I do is try to keep myself really still. I just try to bottle up my energy ... feel it building. I just let it build. Then, I just focus on keeping my thoughts together and those thoughts are on technically what I'm going to do in the race. Um, I usually focus especially on what I'm going to do the first 50. And, I just think about how it's going to feel to look across the pool, and I think about how good it feels to do the first turn, then ... I just imagine it going perfectly, imaging how it's going to feel when it goes perfectly."

Another common element is the notion of high self-awareness. The athletes seemed to have a good sense of what is best for them in terms of preparation and developed their mental preparation routine accordingly. In the following quotes, the athletes indicate that their preparation helps them achieve a desired pre-competition state:

"I just stayed in the hotel room. I didn't walk around a whole lot. I was there to do a good performance not to see the country... I have a certain warm-up that I do and a certain way I like to feel emotionally."

MENTAL READINESS

"[Immediately before the race] I have pretty much of a pre-race ritual I follow where I visualize the race a couple of times, I do 10 slow breaths, relaxation stuff. Then right before I do 10 quick breaths."

"I have to have that feeling of nervousness in order to swim because if I don't then I'm too relaxed and I'm not into it enough. And I've learned that over many, many years ... when it comes to the races it's just going to take over and I'm not going to have to worry about anything. My whole attitude going into the race is to just get in there and have fun."

As can be noted from these few quotes, the athletes used a variety of mental skills to prepare for competition including visualization, deep breathing, self-talk, specific focus / attention (on technique, strategy, having fun), and energy management. The benefits of using a mental and physical preparation routine are well documented in the sport psychology literature. Routines help athletes focus on the "controllables" of performance, help bring consistency to performance, and aid athletes in achieving a desired pre-competition state—as these athletes have come to realize. Just as coaches help their athletes develop race plans and strategies, we may want to think about how we can help athletes with their mental preparation for competition.

Influence of significant others:

In regards to the role and influence of parents in the athlete's swimming, nine of the 10 athletes talked of their parents as having a very positive, supportive role. One athlete noted "there is no way I could have done what I've done without my parents" and many others communicated a similar thought. The one athlete, who did not talk about his parents having a very positive role in his swimming, noted that their role was neutral in that they

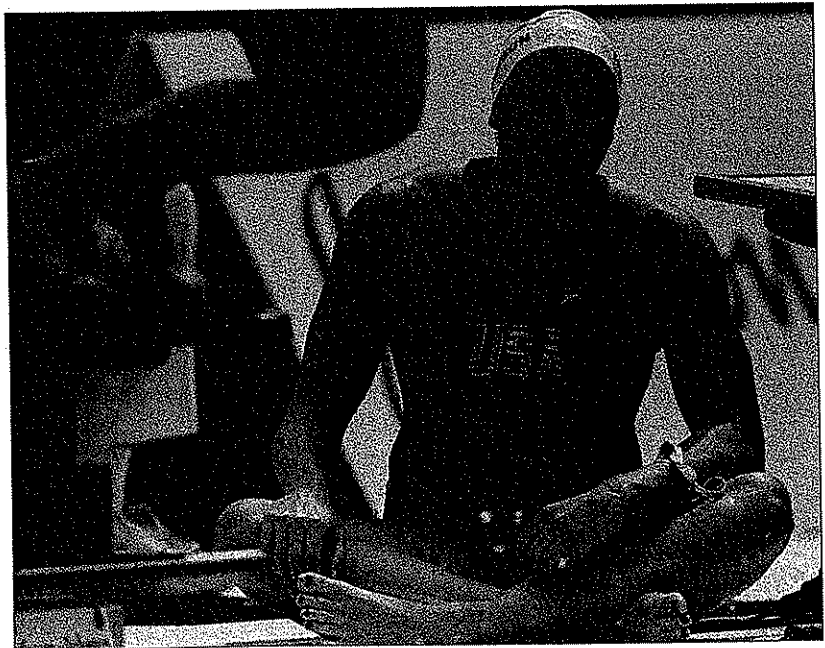
really weren't involved to a great degree, positive or negative. The support offered by parents was both physical/tangible, such as driving to morning practices, attending meets, and moving to a town with a strong program, and emotional, such as offering encouragement and caring for the athlete regardless of performance outcome. Athletes talked of unconditional support from their parents in that they did everything they could to support, encourage and promote the athletes' swimming goals. However, several athletes noted that their parents also had a firm hand ("optimal push") in regards to the athlete making a commitment and working hard.

"They were always very supportive and you know, as long as I was having fun and doing a good job at it and kind of making it worth my while. My mom didn't feel like she was just doing this for me to go play around at swim practice for an hour and a half. She just always told me that if I'm going to sit there for an hour and a half and let you train we'd go there and get some work in and make sure you're doing the work out properly and not play around. That's like all she ever asked."

While no direct correlation can be drawn between supportive parents and a successful swimming career, it seems more than a coincidence that these elite athletes perceived unconditional physical and emotional support from their parents. Related to this, when asked, the athletes noted that they felt no pressure to perform well or to even swim.

"And I mean, I have commitment and they have to have the commitment too, you know. Do they want to take me every day and do this? But they always tell me if I don't like the sport, if I ever get tired of it to get out of it. If you don't like it, stop. But they also keep me motivated. 'Do you want to do this? I think you can do this.' I think they have a huge role."

Similarly, the coaches who work (or worked) with these swimmers were perceived by all the athletes as having a positive, influential role in their respective careers. Coaches seem to be an important factor impacting athlete success. Not surprisingly, athletes talked of the varied roles coaches serve as well as how this role has changed across their career.



MENTAL READINESS



"I give my coaches all the credit in the world. They (HS coaches) built kind of the foundation for my swimming. They kind of got me started and got me shoved off in the right direction ... In college, the level of training has gone up. They've taught me how to swim the races, how to pace them out—they're very instrumental in every aspect of it. And, they provide emotional support. They're people you can go and talk to when you have problems."

"I think their role now is to push me in the workouts that I can't push myself in terms of, you know, like there're some quality workouts where it's like really hard to push yourself beyond that, you know, like, pain threshold, and they're there to like force and keep me honest in that way ..."

"I think that they're also there to alleviate any nerve and anxiety, kind of when I get nervous they tell me it's going to be fine, when I want to keep mulling over mistakes, they tell me, you know, shut up, let's go get ice cream. Or things like that. So, I think they do a lot of damage control."

As with the role and influence of parents, the athletes attribute part of their success to their coaches. Again, it does not seem coincidental that all these elite athletes spoke of the important, influential role of coaches across their career. These athletes have been provided with the right support, guidance and training by coaches and parents which, in the minds of the athletes, is tied to their success.

Unique characteristics:

Each athlete was asked to identify reasons why he/she has had such success in swimming—to identify characteristics that set him/her apart from other athletes who don't make it to this level. While the athletes discussed numerous diverse characteristics, several commonalities arose in the athletes responses to their perception of characteristics or qualities that influ-

ence their success. Common characteristics/attributes mentioned by these athletes included setting goals, hard work, talent, and determination/persistence/desire.

Eight of the 10 athletes talked about the value and importance of setting goals on a consistent basis as one athlete noted when she said "one of my strengths is that I really focus on the small details, like I keep a journal of like little things." This supports past research that has found the use of goal setting to be a characteristic of elite level athletes. Eight of the 10 athletes also commented that their strong work ethic is a primary factor contributing to their swimming success. As the following quotes illustrate, several athletes also gave credit to god-given or natural talent:

"Well, I'd love to say that it's all hard work, but I don't think that's fair. I think you know, definitely in distance swimming, hard work is 90% of it, but there's that other 10% that you know, you need to have the body type, the genetics, whatever to do it right ... and that in combination with all the work I put in."

"Well, I guess working hard always in practice ... I think maybe I have talent first of all. I think working hard is a definite key and doing whatever you can do to get in the mode."

A final characteristic that was mentioned by more than half the athletes related to having a strong desire or determination to excel. In reading the following quotes reflecting this characteristic one wonders how much a coach can influence this, and other, characteristic.

"I am able to race and test myself ... and whoever wants it most is going to touch the wall first ... they (teammates) might be bigger than I am and have been here longer and have been training longer than I have but I want to get to the wall first and I am going to do everything I

can to do that and once you say that ... and I think you try to have that type of outlook and you get to the race and you know you have trained."

"I really enjoy breaking those barriers. I don't mind pain at all. In fact, I enjoy it. I look forward to that moment in the stretch where you have to break that barrier. You know, everything is telling you to stop, but you can go through that."

Much can be learned from our elite swimmers and the mental aspect of swimming. As indicated by the uniqueness of these athletes in terms of their mental approach to practice and competition, there is no precise "recipe" of skills and strategies that can be prescribed. Rather, it is best that we take the general information gleaned from the athletes and work to apply them with other swimmers. Specifically, we need to address how to bring "quality" to training sessions and how to help athletes get their minds as well as their bodies ready for competition. It seems like it needs to be done but the process with which this objective is attained varies greatly across athletes.

FINAL SUMMARY REPORT

The Final Summary Report of this project is available by contacting Suzie Tuffey, Ph.D. at stuffey@usa-swimming.org or 719.578.4578.

REFERENCES

- Gould, D., Guinan, D., Greenleaf, K., Medbery, R., Strickland, M., Lauer, L., & Chung, Y. (1998) Positive and negative factors influencing U.S.Olympic athletes and coaches: Atlanta Games assessment. Final report submitted to USOC Sport Science and Technology.
- Gould, D., Jackson, S., and Finch, L. (1993). Life at the top: The experience of U.S. national champion figure skaters. *The Sport Psychologist*, 7, 354-374.
- Orlick, T. & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist*, 2, 105-130.
- Williams, J. & Krane, V (1998). Psychological characteristics of peak performance. In J.M. Williams (Ed.), *Applied Sport Psychology: Personal Growth to Peak Performance*, (2nd ed), pp. 158-170. Mountain View, CA: Mayfield.