The Evolving Paradigm: Coaching Flow and Efficiency

By: Terry Laughlin

Some years back, Emmett Hines, a Total Immersion Senior Coach and author of the book <u>Fitness Swimming</u>, suggested that TI coaches describe themselves as "evolving paradigm" coaches and refer to those who had not been exposed to TI ideas as "prevailing paradigm" coaches. Total Immersion has become recognized by many as a model for coaching, teaching and practicing swimming that is somewhat different from the norm. So let's examine the prevailing paradigm.

In <u>Swimming into the 21st Century</u> Cecil Colwin wrote that swimming has been recognized as a physical art for 2,000 years or more and that the first known book of swimming theory was published as early as 1531. Athletes have competed in swimming races since the late 19th Century and in 1907, Charlie Daniels swam a stunning world record of :55.4 seconds for 100 yards.

Colwin studied under a pioneering coach named Jimmy Green who began his career in the 1920s. According to Colwin, Green always insisted there was "nothing so akin to swimming as flying." He writes "The man was uncanny; he could tell what you were thinking while you swam and what sensations you were receiving from the water. He was a brilliant and natural analyst of movement. He could pick out a fault within seconds. He would give a piercing whistle to stop you and then he would start the correction. Usually he corrected just one item and the rest of the stroke automatically fell into place. His natural ability to analyze human movement was not confined to swimming; golfers, tennis players and others sought his assistance."

When I read that description, I think Jimmy Green might have been the very first *evolving paradigm coach*. However, the paradigm that was almost universally adopted by coaches after Green was a different one. As Colwin further relates "with the strenuous training undertaken by the Japanese in the 1930s came the growing realization of how much hard work the human body could absorb." A training paradigm became dominant for the rest of the 20th Century.

Under the influence of Doc Counsilman in the 1960s and Ernie Maglischo in the 1980s, the training model became more organized and scientific. But –also influenced by their books and the research conducted by many "swimming scientists" the model for describing technique became so complicated and *technical* that most coaches felt themselves incapable of grasping its intricacies. Many found macro/microcycles, blood lactate measurements and "energy-system training" embracing nearly a dozen categories (EN1, EN2, EN3, etc. etc. etc) easier to understand and apply than "vortex theory" or Bernoulli's principle.

By the end of the 20th Century, the "prevailing paradigm" for training swimmers seemed to be about 90 percent focused on *how far, how hard and how much rest.* And the remaining 10 percent that might be influenced by technique seemed, in the minds of many coaches, to be about 90 percent determined by "talent." Talented swimmers would just figure out the best way to swim, if they swam enough yards. And the others? You might teach a bit but the most valuable help you could give them was to work them really hard; their best shot at overcoming talent deficiencies was through sheer fitness.

The conditioning paradigm became so sacred that few coaches would dream of doing what Jimmy Green did – actually stop a swimmer to correct a stroke error.

Throughout the 1970s and 80s, every coach I knew (myself included) held the set to be sacred and inviolable: *Make the intervals and complete the set at all costs* – we'll fix the technique later. Doing a fly set? *Tough it out; don't break stroke!* Losing ground at the end of your races? *You need to get in better shape!* Are you losing races to another team? *We better squeeze another few thousand yards into each week...*OR *Their swimmers are just more talented!*

And those technique or drill sets? Few coaches applied much rigor or importance to drill sets or used them thoughtfully as a process. Drills were mainly done in a random or careless way; some even classified them as garbage yardage. It was a rare coach who was very particular about the execution and sequencing of drills and their integration with whole stroke. Others felt if you gave a few hundred yards of drill practice during warmup or cooldown, then you were covering technique adequately.

So the coaching paradigm, while underpinned by more "science" had not fundamentally changed since the 1930s. The first suggestion of a different way to coach came with Bill Boomer in the early 1990s who suggested that maybe, just maybe, coaches should balance their emphasis on energy production with the same degree of attention to energy conservation. And Boomer further suggested that emphasis on technique should be balanced between "how you push water toward your feet" and *the shape of the vessel*.

When I first heard Boomer speak at an ASCA World Clinic in San Francisco in 1988, I was immediately struck by how novel and exciting his insights were; I felt I had pretty well exhausted the possibilities for imaginative ways of designing training sets. Boomer's philosophy suggested unlimited new potential for helping swimmers improve. While I had gone to countless "prevailing paradigm" clinic talks on "how I trained my elite swimmer" all of them variations on the old theme of *more and harder*, Boomer was describing a whole new world. Several weeks later I drove to Rochester to watch his theories in practice and in 1989 I published articles about Boomer and his ideas in *Swimming World* and Swimming Technique magazines.

Later that year I decided to quit running workouts and devote myself to teaching technique in swim camps and clinics that I called Total Immersion. The hundreds of clinics, camps and weekend workshops we have conducted since then and the countless thousands of swimmers that have become our students have served as a unique laboratory for exploring the nearly universal "human swimming problem" and how to solve it. The swimmers were stunned to find themselves improving more in two to five days than they had in five or 10 years of training. The coaches at the workshops were equally stunned to see swimmers improve far more, literally overnight, than anything in their prior experience.

As a result, these coaches went home and applied the same ideas, on a daily basis, in their regular coaching. All of us found that the TI teaching approach when applied to daily coaching of any kind of team, produced improvement that was "off the charts" from anything in our prior coaching experience, both with individuals and team-wide.

Those ideas have since been applied to every imaginable form of aquatic teaching or coaching, with the same "off the chart" improvements over the paradigms they replaced. From teaching hydrophobic adults or non-swimming 5-year olds, to training the

Navy Seals, the TI "evolving paradigm" has been an unqualified success everywhere. So what is the evolving paradigm exactly?

Great swimmers—dolphins *and* Olympic medallists—share the ability to move with grace, flow, and economy at any speed. What distinguishes fish from humans is their "fishlike" flow. What distinguishes great human swimmers from average ones is the ability to stay smooth and fluid at top speed. And what makes swimming so difficult for poor swimmers is that fluency is impossible at *any* speed.

Total Immersion has had striking success in teaching "average" swimmers to approach the fluency of elites, which suggests that much of what coaches traditionally call "talent" is *teachable.* TI has been able to achieve this sort of transformation, literally overnight in most cases, because thousands of teaching experiences have allowed us several unusual insights into the swimming-improvement process:

1. Humans are "hard-wired" to swim inefficiently. Over 90 percent of any "average" population of swimmers (and a HS team is perhaps more "average" than any other) have marked "struggling skills" ingrained in muscle memory. The more they train, the more permanent these inefficient habits become. We call this "human swimming." Because the skills that have proven to create great efficiency are non-instinctive, *they have to be taught* and then practiced patiently and mindfully to overcome habit and instinct. We call this "Fishlike Swimming" and these skills—balance, *slippery* positions, and coordinated, whole-body propelling movements—are the core of what we teach.

2. Swimmers learn far faster when taught in "martial arts" style: a logical sequence of drills, beginning with simple movements and positions ("mini-skills") and progressing by small steps to more advanced positions and more-integrated movements. When guided through this process, swimmers progress to efficiency and fluency with astonishing speed. More importantly, the same drills that teach basic skills to the beginning swimmer can be used with deeper insight and subtlety to polish highly advanced skills by the elite swimmer, allowing a single skill thread to be employed throughout a swimmer's entire development.

3. Because such extraordinary amounts of energy are lost to "ordinary" inefficiency in Human Swimming, and because *no amount of training* can compensate for the energy lost to wave-making, we believe strongly that all developing swimmers (i.e. *any* swimmer short of the elite level) should be given the opportunity to become fluent and economical in a broad range of skills before "energy-system-training" becomes an important consideration. "Train for swimming as a sport only when you have mastered it as an art."

And what's the evolving paradigm position on training and conditioning? It is not our goal to do less yardage. It is for less yardage that is careless, thoughtless, generic and divorced from the practice of high level skill — at least the highest level possible for the particular swimmer. It is also our goal for coaches to recognize that high level swimming skill is an elusive and extremely rare thing, that ANY swimmer (even the current world record holder), BECAUSE they still have Human DNA, still have plenty of room to improve their efficiency and can likely wring out more improvement from their current best much more easily and quickly by focusing on technique than by looking for another training tweak or increasing their training volume or intensity.

In my upcoming articles for NISCA Journal, I'll suggest simple practical ways to join the ranks of Evolving Paradigm coaches.

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