

Maximising Olympic Distance Performance – The Athlete’s Perspective

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Preparation is not just the physical training in the months leading up to the event. There are psychological, emotional, dietary, health and circumstantial components that are critical to performance. A balance must be kept between these. An obvious but important factor is the sporting career of the athlete. Most elite athletes have dedicated themselves to sport from a very young age. With this span of time comes wins and losses and constant competitive experience. Understanding how an elite triathlete maximises Olympic Distance Triathlon Performance is as complicated as it is personal. This paper will discuss these themes in the context of my career as an elite triathlete since 1991.

1. Background

My triathlon career began in October 1991, shortly after my sixteenth birthday. I competed in a Brisbane Milo event over a distance of 300/12/3. I finished eighth after coming out of the water second. I had been swim training since I was four so this was no real surprise to me. I had spent what seemed like forever in transition; my bike was too big and the distance of the run was too short. I knew my best run distances were 6km and above. This became clear following my years in primary school as I had been beaten over distances up to 4km. There was great room for improvement but I was hooked and I knew I would be more suited as the distances became longer. I later represented Queensland in the National Schools Cross Country Championships over 8km and was placed in a 5km State Schools Athletics Championship but although I had achieved a satisfactory level in running races needed to be much longer which Olympic Distance Triathlon offered.

In the eight years since, I have competed in 51 Olympic Distance Triathlons - four of which I did not finish due to injury, sickness, or mechanical failure. I competed in:

- 4 triathlons when I was 18 years of age
- 7 when I was 19 years of age
- 4 when I was 20 years of age
- 12 when I was 21 years of age
- 15 when I was 22 years of age
- 7 when I was 23 years of age, and
- 2 so far at 24 years of age

My introduction to olympic distance triathlon was slow. I had competed in five olympic distance triathlons prior to racing in my first Olympic Distance Junior World Championships and thirteen when I won the 1995 World Junior Championships.

My early sporting career started with swimming. Apart from the long and regular eleven weekly sessions, I learned the finer points in stroke

technique and learned to swim fast at an early age.

Whilst I never had a regular running coach I was advised to run long and slow. Rhythm was achieved by good head position and flowing arm movement. I was also advised to position the ball of the foot under the knee to get the necessary lift.

In my formative years, I had no specialist training cycling but I was given simple advice to spin on small gears to learn how to pedal. In each of the disciplines I practised these and other self learned techniques. Every second of every session I concentrated on technique, following the adage “practice makes perfect”.

I trained hard and often but I did not push myself into olympic distance racing. Race days were sacred. Mentally and physically, I was ready to explode on race days. But the theory was that I should not suffer the Olympic Distance until I was 100% ready unless it might have an adverse mental and physical effect on my performance in future.

I competed in another 16 triathlons in the first two years of my triathlon career. It was not until December 1993, at eighteen, that I raced in my first olympic distance triathlon. I competed in the Cadbury National Junior Selection race at Port Stephens. I won after taking the lead for the first time in the run leg. Until this time, my training mainly revolved around the particular sport on the school sports calendar (swimming September to March, cross country running April to June, and athletics July to August) but I

had some introduction to triathlon training with a triathlon coach. My two year preparation for olympic distance triathlon had paid dividends.

A question I ask now is would I be a better triathlete had I been trained as a triathlete rather than specifically training in each discipline with specialist coaching? For me, the answer is that specific uninterrupted training, especially in swimming, taught me to repetitively practice technique in each discipline – which I still rely on today.

Also, I ask how much does my performance now, over the olympic distance, at 24 years of age, depend on the platform laid in those years where I was protected from the arduousness of racing often in extreme conditions for 1hour 50 minutes. It takes not much more time to run a marathon. I think my slow introduction was the right foundation.

2. The Coach

I have had four triathlon coaches (probably there aren't many more in Australia!) and there was a period when I coached myself. I engaged a swim coach and did my running, cycling and transition training myself. Managed in a disciplined manner, this approach has appeal as one can get very specialised training in each of the disciplines and for me it meant I could live at home with appropriate meals and support. However, my racing performances during this period were mediocre. Swim sessions were unnecessarily long, as were designed for swimmers. Running and cycling lacked the required quality and intensity although I race regularly in cycle races. This approach to training is used by some of our elite

athletes and highlights the infancy of our sport as it has not progressed to the stage where there are enough elite coaches with the appropriate credentials and experience to provide training at the required level.

A coach is important to me as I will train more effectively and as a result maximise performance in racing. Each of the coaches I have had has been very skilful and used different training methods. From an athlete's point of view, some of the requirements for effective coaching are:

- the coach's team is strong in elite athletes creating a competitive environment
- good programs and advice
- general agreement with coaching philosophies
- training with minimum of injury

3. Training, Preparation and Racing

Triathlon offers a great challenge to athletes, coaches, high performance managers and others involved. It not only has three distinct disciplines but it is connected by two others - "swim-bike" and "bike-run". This adds complexity for those trying to maximise performance. The "do's and don't's" are not set in concrete and opinions in maximising performance vary greatly. Maximising performances of course may mean different things to coaches and athletes. To some it will mean maximising performance in one critical race, or a series of races. It will often depend on what are critical national selection races. Training through races may be necessary to be at a peak for a particular race.

My preparation involves careful training and racing at least eight weeks from the race where my performance is to be maximised. This involves selecting lead up races preferably spaced at two weekly intervals. In the final few days I will rest and make sure I am adequately hydrated.

3.1 Swim

My triathlon performance is underpinned by my swim and it has become such an important element since the drafting rule was applied to World Cup racing. I am now pleased about my early education in swimming as it is essential to make the first bike pack out of transition to put oneself in the right position. I train about 28km per week which is enough for me to be in the first group out of the water after a 1500m swim.

My swim stroke is a great asset. I now believe that had I not trained as a swimmer from a young age, I would be facing a difficult task to maximise my performance at the elite level. I often compare the swim stroke to the golf stroke as it must be rhythmically and mechanically perfect to gain optimum effectiveness. However, the open water, turning buoys and the proximity of other competitors can wreak havoc with your stroke. Open water swim practice is required so that breathing, headlift and stroke can be refined for race circumstances. Also a good start is imperative to avoid the trouble in the back of the field. Finding a competitor's feet is a natural tactic unless leading.

3.2 Swim Bike

This transition seems to have less importance than its counterpart as the muscles used are wholly different. However, maintaining the continuity of

the race is critical. A good transition is essential to gain as many seconds as possible.

3.3 Bike

I cycle about 400km per week with a variety of speed work, rolling hills, time trials and strength work using the hinterland. The aim is to get the miles in the legs. The triathlon distance is always 40km - not a great distance for a cycle race, but the shorter the race the greater the speed and the higher the level of skill required in taking turns and sitting on a wheel. The technical nature of the courses has meant that I do drill practice to improve the technical aspects of my bike handling.

Now drafting brings higher levels of danger, faster racing, but with some opportunity for physical relief when taking a wheel. In the future, when the pack is racing and it becomes even more "cut throat", I think we will see more cycling surges and counter-surges, especially from those with weaker run legs. There is now little opportunity for a sole cyclist to stay in front of the pack since triathletes are becoming proficient racing cyclists. It is that part of the race which now carries with it the most tactics.

3.4 Bike Run

This is critical as the legs are the centre of attention in both the bike and the run but used in entirely conflicting ways. I train for this transition each week which is imperative to my overall performance. It is difficult to achieve this having coaches for each discipline.

3.5 Run

One will argue this is the most critical and it seems this is the discipline where

there can be the greatest diversity of opinion in training. Some will work on the basis of the more you do, the better you get. If this is the case I can get a lot better. I generally run about up to 70km per week when other successful athletes will train up to 100km to 140km per week. Perhaps as the sport evolves maximising performance will be in the latter range.

The 10km run leg comes after 75minutes of swimming and cycling at high intensity. I instinctively run into rhythm, adopt the right posture and try to keep my leg speed up and just run fast. This is something that I concentrate on during training. There is little time to think – maximising performance is a reflection of adequate training. If I get in a position to finish high in the field my mental attitude will naturally increase. There is often not much time for tactics. It is a case of running as fast as you can, reaching into the bank of training miles cumulated from the years before.

3.6 Weights and resistance training and stretching

My personal view is that weight training would be advantageous in maximising performance. But there is some debate about whether the performance would be maximised from an additional session of weights. Perhaps the time would be better spent doing another swim/bike/run session. My regular programs do not include weight training, with the development of strength coming from general training sessions through mountain and hill climbing work. My only experience with weight training was prior to winning the Queensland Schools Championships. This was over the sprint distance which gave me the edge I needed for that day. I had been doing

weight training under a coach for eight weeks prior.

I currently do strength exercises on a regular basis and stretch to prevent injury. These aspects of my training are largely unstructured, but as I get older I expect there will be a greater demand for me to use weights more regularly to maximise performance.

3.7 Drafting

I have witnessed first hand the transition between non-drafting and drafting. From my own point of view this has not made too much difference to my performances as a strong swim leg will put you into the race be it drafting or non-drafting.. Disc wheels have disappeared and aero bars have been shortened as they do not have the effect they used to.

The paramount importance of the swim leg has not yet been wholly realised as there are not yet enough brilliant 1500m swimmers to form a bike pack to always form a bike pack of their own to take advantage of the swim lead. Generally, the good swimmer will be left to labour on the bike by him/herself or with perhaps only one other competitor until the pack is ready to hunt them down. They are then left totally vulnerable in the run leg. But when bike packs come together the race becomes a runners race as some will be inclined to do less work on the bike whilst the non runners will do more. Drafting has made the race faster and a far more tactical affair.

Training must now be directed to the requirements of drafting races.

3.8 The Course

The Olympic Distance Courses are now often technical. The swim can be in laps so good positioning at the turning buoys is essential. The bike courses are technical around many laps which demands superior bike skills. Apart from triathlons I have often race in cycling criteriums to learn the skills required. The run courses are also lap courses but this has a lesser effect on performance. The courses can include hills and or be totally flat so that preparation may have to be specific to the course to get a satisfactory result.

This brings me to the question of what is the adequate amount of training to maximise performance at the Olympic Distance. I have never raced at a triathlon distance longer than this. I have never trained or raced over the marathon running distance and only trained over a running distance beyond half marathon distance in recent times. I have relied on my technical and aerobic ability to consistently maximise my performances. This is complemented simply by my getting older and physically more mature. As a smaller person I have always found it has taken me a little longer for my body to “catch up” so I can maximise my expected performance. I have been conscious of training to extreme where the onset of injuries could put me at risk or shorten my career. I have not yet reached physical maturity.

4. Olympic Distance versus Grand Prix/F1 Distances

One of the great dilemmas for the professional triathlete is to balance the necessities to earn a living and still achieve the lofty ambitions of national selection for World Championships, Commonwealth Games and Olympics. In 1996, directly after winning the World Junior Olympic Distance Championships I raced in the International Triathlon Grand Prix Series. At that stage in my career it was a significant decision to make. I had earned little prizemoney or sponsorships even after winning the Worlds. The shorter, intense distances of the Grand Prix style of racing do not wholly suit my strengths as an athlete. Yet at that time I had to reconcile being a professional against my olympic distance aspirations. During that year I raced in five olympic distance events. After four years in triathlon, I had competed in only 19 olympic distance events. In retrospect, it took another year for my olympic distance form to return to some level of consistency which reflected the way I trained for these events and my first year out of juniors, as well as the different style of racing.

The professional events such as the Grand Prix/F1 and Tri Tour events may not wholly accord with preparation for the institutional olympic distance events. This can be a dilemma for the athlete and coach as it may be impossible to maximise performance in both in the one season. Triathletes do not have the luxury of training with a taper for one specific event in each year. Decisions such as whether to train through the Grand Prix/F1 Series, train for greater

speed, taper for each race, or only some, are difficult. All become significant decisions when World rankings and national selection hinge on soon to be contested olympic distance races. You will notice some athletes do the F1 Series, others do not. It is often not clear to the triathlete which is the better option or if both types of racing can complement each other. I have often compared the two to be like squash and tennis the games are alike, but nothing alike.

I suppose my current view having raced in five Australian Grand Prix/F1 Series, one International Grand Prix Series and two Australian Tri Tours is that they do not necessarily in themselves prepare you for olympic distance triathlon racing despite the greater intensity. Although it provides the opportunity to hone your skills, gives you greater experience and you learn to deliver under great physical and mental pressure.

5. Racing Frequency

It is difficult for me to say what the optimum number of races an athlete can race in to maximise performance without risking injury and suffering serious staleness. The frequency of racing to maximise performance is something I believe will depend on many factors for me. Having eight years of triathlon racing in 51 races is mainly as a result of the influence of my mentors in my early years of my career. As I have grown older I have raced more. In 1998 I raced 13 times and this was my most consistent year in olympic distance triathlon. I certainly thought I could manage that number of races at that time, and I did. I finished third in the ITU World Cup Series and at the end of the

year I was ranked sixth in ITU World Rankings. I raced more and my performances improved. But I believe there comes a time when you have to stop racing, rest and build base again.

In the Tour de France, the athletes race every day for three weeks over massive distances and mountainous terrain. Compare this to an elite marathon runner who would only run two marathons a year. An acceptable number of races in triathlon to maximise performance and remain free of injury is not clear to me. This may be an individual thing but more likely sports scientists, coaches and triathletes themselves should know better as the sport progresses further.

6. The Other Session – Rest/Recovery

Recovery between sessions is vital to maximising training performance and I have no difficulty doing this after each session. Recovery is the session where it is most difficult to measure its value. I am currently allowed one day off per week. My performances have been better having the day off and my injury rate has been much lower. Prior to this I would not have a day off but my training was not as high in intensity. Prior to winning the Junior World Championships I was having one morning rest/recovery per week.

Often it can be difficult to reconcile whether you should be getting a few more “miles” in the legs rather than resting. I am sure some coaches would define resting as under-achieving. I suppose the effect of additional training compared to resting can only be measured in the longer term.

7. Injury

To maximise performance I have tended on the safe side with injury unless my coach has insisted I train through. Prior to the World Juniors in 1995, I had an ITB problem which lasted for four weeks. I trained during this time. This injury came after an all day session at a much higher increment than the usual training miles. It was one of the few times I trained through an injury. Early in my career I would rest for 48 hours after an injury and this fixed most problems. I have relied on physiotherapy for all my serious injuries from the best physios. I now use massage on a regular basis as a precaution against injury.

I have had three a major bike falls in training which unfortunately goes with the territory. Each time I have received immediate medical attention and concentrated physiotherapy. Coaches have different approaches to recognising and treating injuries. The long term effects of injury should not be discounted. Obviously maximising performance in Olympic Distance racing can only be achieved when injury free.

8. The Ideal Body Shape for Olympic Distance Triathlon

For me, the signs were clear early in my sporting life that I never had abundant speed. My body size, weight and genes meant that I was probably more suited to longer distances. This makes me wonder what the essential aerobic and physical characteristics are for maximising performance over the Olympic Distance. I believe a triathlete should not be too big in the pecs and

shoulders nor too big in the quads or gluts. This is just extra weight to be carried during the run. Yet swimming and cycling develops these parts. Body shape is something over which one has little control. Just as a result of training you naturally develop in the quads or the shoulders.

Perhaps the best body shape is to look as much like a runner as possible - narrow in the shoulders, not overly developed in the quads, and very lean all over. However, this has to be achieved without losing strength in the upper body and legs required for the run and the bike. But, without a good run leg in Olympic Distance triathlon in a well balanced field of elite triathletes, you cannot win. Therefore I think some emphasis needs to be placed in the ideal shape of a runner to maximise performance. Perhaps triathlon training, in the long run produces the ideal triathlon body naturally.

9. Diet and Supplements

My diet is fairly basic with pasta and fruit and vegetables as common elements. I take little in the way of dietary supplementation probably through a lack of reliable professional advice rather than anything else. This may need greater consideration when considering performance maximisation.

10. Travel

Travelling is part and parcel of being a professional triathlete and in some ways hinders performance. The dilemma of the triathlete is that he/she must travel to races to earn money and/or world ranking points. One has to decide which races to target which hopefully fall nicely into training programs but as the

races set down in countries around the world they will only coincidentally match up with an athlete trying to maximise performance.

11. Conclusion

Olympic distance triathlon comprises a set of events the technical aspects of which are extraordinarily complex when taken as a whole. I believe it offers more challenges than any other sport, not just because of the separate disciplines, but as a young sport the norms in respect of training, preparation, racing and recovery are still being established. The current triathletes in some respects are pioneers, as are the coaches, sports scientists and administrators each of whom has a role in contributing to the maximisation of performance of triathletes.

I have outlined my introduction to the sport and my subsequent journey to date and hope that this will contribute to the general education one might undertake in becoming an elite olympic distance triathlete. I hope that the outline of the historical record of my olympic distance races provides some insight into the training and race management for triathletes, particularly those progressing through the junior ranks, and the subsequent progression towards high performance at the elite level of olympic distance triathlon competition.

My performances have been founded on a good technique in each discipline which I believe to be the most significant factor, apart from having the aerobic ability, that has sustained my performances.

Guidance from high performance triathlon coaches is essential in maximising performance as well as specialist coaching in each of the disciplines in the formative years.

Now that triathlon is an Olympic sport significantly more pressures have been imposed upon all parties involved. From a triathlete's perspective this has meant that making the right decisions to maximise performance is much more imperative especially given the limited timeframe in the life cycle of the triathlete. I hope the comments in this paper may contribute in a positive way in helping triathletes maximise performances over the olympic distance.