

**THE LEGACY
THAT WE ARE NOW EXPERIENCING
BY
PATRICK MORTIMER, CARL DOUGLAS AND ANDREW
KEY, LEICESTER TIGERS ACADEMY.**

This article has been based upon experience and opinion in Long Term Athlete Development in Rugby Union for the last five years. Some of it will be prickly in nature and is designed to stimulate discussion and questioning of what we are doing. All references are aimed at the development of a rugby player.

Deeply seated within the ensuing discussion is the change of lifestyle in Great Britain and ultimately in our physical culture. The numbers of boys and girls playing freely have been replaced by an increasing number of sports clubs. Sports clubs provide safe environments but have reduced the amount of ‘free play’ among all children. Play that takes part in the streets and continues until the sun sets and beyond has all but disappeared in our streets and parks. This is, in part, due to the restrictions that our society has unfortunately enforced to protect the innocent from the perverse. It is not going unnoticed that the effects of the replacement activities tend to concern computer games and bedroom television sets.

In 1974, John Jesse, a wrestling coach of some repute in the USA, wrote a definitive book called ‘Wrestling Physical Conditioning Encyclopaedia’. In this book Jesse writes about this, a key issue. According to Jesse,

“In accepting the concept of progressive resistance training with weights the coaching profession in the English speaking countries, particularly America and Canada, were faced with cultural problems. With machines doing most of the work the majority of young men entering athletics were not drawn from a background of labor work in the mines, on the farms, in the forests or on the docks. With increasing affluence, urbanization and mechanization, children were losing the philosophy of hard work and patience to attain a goal.” (Jesse, p. 65)

Today’s age has taken this to another level. With physical education programmes being cut from the school curriculum and child obesity rising every year, we need to take a long hard look at the value that physical conditioning holds in our society.

Many adults are less active than ever. A combination of increased work demands, combined with a reduction in physical activity, has led to time-saving inactivity. We now have cars for all, we even order groceries online - so no one is moving, resulting in *less* of a culture that is physically active. This is causing a serious problem with our health and well-being. Therefore, the lifestyle that our children eventually model is that of inactivity and their reliance upon organised clubs to develop talent is total.

So, in the refined environment of sport we talk the talk but do not walk the talk. That is to say that our investment in Istavan Bayli and the Academies' and Regional Development Officers' exposure to his lessons and lectures has resulted in a great deal of knowledge being absorbed. However, the skills and understanding required have yet to surface and there has been at best a *mild* shift in programme. Why do I say this? Well we all know the buzzwords but we are at present not demanding essential multi-sport participation through the age groups - and where are the coaches and sessions that involve physical preparation that Bayli advocated?

Through our Tigers' work we have uncovered some fantastic coaching practice in terms of developing rugby skills. However, we are in no way developing the balanced curriculum of technical, tactical, physical or mental. We have met the challenge of the technical as our academy inductees are displaying greater skill. We are now approaching the tactical development of young players, so watch this space. It is our next challenge to implement a General Physical Preparation¹ (GPP) programme that is user-friendly and inexpensive. This is necessary because, in the main, physical preparation is non-existent.

Vladimir Zatsiorsky, a strength and coach and researcher, outlines that GPP needs to be carried out before heavy barbell training. Zatsiorsky recommends a three year window to prepare youngsters for the next step (Zatsiorsky, 1995).

So what are the hurdles that block our acceptance of the concepts and ideas that have been repeated by other authors (Bayli, 2004, Bompa, 2000, Abbott and Collins, 2002) and twenty to thirty years of Eastern bloc sport development?

One or two popular journalists have very recently drawn attention to the issue, but they may have been starting from the wrong end of the matter. (Ackford, P. *Have players given way to the gladiators?* A special report on the dangers faced by professional rugby players. The Daily Telegraph, 24 Sep 2006). The writers and columnists have levelled their accusation that we, rugby, spend too much time on strength and conditioning. I personally find this comment laughable and, in many ways, ill-informed. To highlight the crassness of such copy here is a true story of a fourteen year-old who later became a strength and conditioning coach.

This person, a colleague of mine, dislocated his neck at the age of fourteen when playing rugby. He recovered and is having a blessed life. He now believes that the injury was predominantly because he was weak through the muscles of his back and neck. He reported that he had been discouraged from weight training because he was told he might hurt himself! Perhaps if he had trained with weights, he may have avoided the injury or reduced its severity and might have been able to resist the force applied to his trunk. This is a supposition that my colleague agrees with. So, in the authors' opinion, we are asking some players to play who are physically unprepared and we are changing laws before enforcing the concepts and research that we have paid for (Bayli 2001). If we provide GPP, many young players will become more

¹ General Physical Preparation – is the development of strength through manual labour, gymnastics, swimming, medicine ball training, dumbbell weight training and body weight activities and sports.

able to cope. So the reported obsession to create gladiators is based upon the fact that we are asking young men, under the age of sixteen, to take loads that they are unprepared for through a lack of GPP and past day-to-day physical demands of life.

What's the solution to all this? In order to address this question let's look at talent identification and development, today's picture, the mental by-products and how we can achieve athleticism and GPP.

Talent identification and Development.

Selection into academies is based largely upon performance, the ability to run, catch, tackle and pass. You could call these elements the 'brains' of the player. It is then up to the strength coach to create a physique, the 'monument' of the player, which can cope with the demands of our game.

Wayne Bennett, a long-serving Aussie Rugby League coach stated that:

"You can't put brains in a monument but you can make a monument out of brains."

Wayne Bennett, *Don't Die With The Music In You*, 2002.

What Wayne is saying here is that any player needs to have *some* rugby talent and then he needs to be given a body that can play. Thus, it is important to (physically) reinforce and enhance all players' ability to perform and to protect them.

We all know that the statement above, if followed, would give us the best players but not necessarily the best physical specimens under the age of sixteen. However, we need to make sure that we have basic fundamentals in place so that we can create those 'monuments' that can cope with the modern game. It is, therefore, essential that we are able to implement a programme that is the equivalent of and equal to the technical programme for GPP. If the players do not have the basic foundation, formerly created by free play and physical labour, the youngster will continually break down and, perhaps, might never reach his/her playing potential due to injury. A problem faced by many sports in this country is this exact issue of physical breakdown. Young players and athletes, who should be at the cutting edge of the sport, are unable to participate because they are injured for long periods of time. Through the use of GPP and the later intervention of specialist strength and conditioning coaches, players and athletes can reduce the magnitude of injury and create a 'robust body' (D.Collins, UK Athletics, 2006).

So, under the age of sixteen, we need to look at the blend of experiences a youngster is exposed to. It's not all strength training, as the popular press would have us believe, and it's not more rugby as many coaches and parents would believe. *It is a balance.*

Today's Picture.

Many youngsters and parents have fallen in to the trap of 'more is better'. This results in early specialisation of the young player in one sport. Early specialisation has been clearly outlined (Bayli, 2004, Bompa, 2000, Abbott and Collins, 2002) as a short-sighted strategy to develop rugby players. Early specialisation means that we see young players playing nothing *but* rugby at a very early age. This will promote an individual to excellence at an early age but history outlines that few make the equivalent grade as an adult.

Evidence to support late specialisation comes from a number of elite performers. Pat Howard would be considered a talented player of our time. He told the story that he was in the 3rd XV at school but made the final Aussie trial for basketball. We at Leicester are very pleased that his size prevented him from making the basketball team. However, here is an elite performer who came to the game late and had been pretty good at another.

Some sports almost demand early specialisation because the performance age is so young; this is certainly true in gymnastics. But our sport requires the best players to perform within the Premiership and the senior international stage at a later developmental stage than their gymnastic counterparts. Therefore, we believe, each and every player up to the age of sixteen should be playing *more than four sports in one twelve-month period* (www.BritishJudoAssociation.org.uk, www.RFU.com, and www.LeicesterTigers.co.uk LTAD documentation).

The Mental Development of LTAD lifestyle.

The reasons for participating in and experiencing a multi-sport programme is to promote multi-skill development and, more importantly, to encourage the ability of the brain to learn and adjust to new skills being introduced. It is indeed no coincidence that our best academy players are the highest performers in other sports. They are also the most coachable, they are uninhibited in terms of skill acquisition and they are the best overall trainers.

You may question if this is connected; the research of Bayli (2004), Bompa (2000) and Abbott and Collins (2002) would suggest that there is such a connection. Incidentally, these boys are also the most physical and athletic, which means they are flexible, strong and agile. This does not exclude those who are unable to play other sports but it is rare to see an elite player who cannot play some other sport to a high degree.

Why is it that most are able at other sports? Those players have encountered a multi-sport approach and are able to cope with greater mental loads. Put simply, the brain is able to chop and change from one sport to another easily. The skill of chopping and changing is essential for a player to cope with the level of knowledge required to play at the highest level. It creates brain space that assists in coping with pressure, one of the achilles heels of players (Moran, 2003).

Solutions.

Now that the picture is painted, perhaps it is now appropriate to suggest some ideas and processes that may make more of a cultural change within our game.

1. Increase the athleticism of our players. Coaches and parents should advocate to youngsters the playing of more than one sport throughout their development from six to sixteen years old. Resist the temptation to play more of the one sport you love - play a few.

These sports should have elements that are different from rugby. For instance, tennis, basketball, football, wrestling, judo and swimming should be included in a balanced development plan. Multi sports provide the athlete with the environments in which to grow mentally and physically.

2. It is in the authors' opinion that we should have methods of GPP in place at every level of our sport. This can be achieved in two ways:

- a) Each player should take a regular class of judo and
- b) Each player should carry out activities that demand strength (climbing, crawling, digging holes, chopping wood, running cross-country, orienteering, labouring - the list is endless²).

For example, for the last three years at Tigers we have accepted academy players with physical deficiencies. The game below sixteen has created sixteen year olds with lower back pain and restrictions in hip mobility, namely in the L1 and L5 spinal regions where the lower back becomes rigid. To avoid this we need to develop trunk (sometimes called corset) and core strength to support the front, back and sides of the body. The need to carry out weight training is clear in the fact that the boy that undertakes scrummaging and contact has probably had little or no preparation for the action of being loaded from behind and being used as a pushing device; there has been no structure to develop the necessary rigidity in the lower spine by the body (muscle tissue) locking up. Players often come with great pectorals from bench pressing, but bench pressing removes the need for trunk strength due to the simple fact that the bench supports the back throughout the exercise. On the other hand, the 'old school' press-up demands trunk strength in order to prevent sag at the waist and thus assists in developing trunk strength, thereby reducing the need of the musculature around the lower spine to lock up. It locks up to protect.

We do need to advocate and carry out body-weight strength training and dumbbell work as a minimum. Some of you will remember doing dumbbell circuits at school, along with gymnastics and body-weight circuit training.

Some other sports can assist in the physical and mental development of the player. One such sport is judo. Through judo, the player can develop flexibility, mobility, agility, strength and co-ordination, all of which can assist in our game. If you are not sure, go and watch a judo club

² See Leicester Tigers LTAD page

train or, better still, go along to their session and have a go. You'll find it provides a rugby player with all that is required in this area.

Resistance Training & Injuries in Children.

It is perhaps also appropriate to discuss the risk of injuries to youngsters. Very few people consider the risks of injury when participating in competitive or even recreational sport. For example, many parents deem it good practice to send their little girl down to the local gym to learn gymnastics. If you mentioned the term weight training to these people they would hold garlic in front of your face and throw holy water at you ...possibly!?! However, you are more likely to injure yourself in gymnastics than in weight training. Landing from a vault in gymnastics transfers more of your own body weight more violently and directly through your lower back, knees and hips than squatting a weight would ever do.

We should be enforcing a basic strength training regime of body-weight exercise that develops the natural strength of youngsters to help protect them against injuries. This is not the advanced moves that you would associate with the weight lifting room, but rather GPP. GPP can include gymnastic moves such as handstand press-ups, press ups, fixed feet or fixed torso sit-ups, crawling, pull-ups (tree climbing), digging, sledge hammering and sports that involve body weight grappling. These are activities that we as parents may have engaged in during our own childhood, but our children have generally not been exposed to them.

The most common questions that get asked are, "Does weight training stunt growth?" and, "When should we start?" There was concern over the potential damage that weight training can cause to the growth plates on the joints of young athletes. Over a five year period, only one case of damaged growth plate was reported from 1977 to 1982 (Gumbs et al, 1982) on a twelve year old boy. Unfortunately, the reason for the damage was poor lifting technique. Although the growth plate was damaged, it appears that there was very little chance of it causing stunted growth (Caine, 2006). As we all know, prevention is better than the cure, so avoid damaging the growth plate by providing proper supervision for the athletes.

Training studies where the technique is controlled have so far yielded no injuries (Sewall and Michelli, 1986; Blimkie, 1989). Rians et al (1987) did report seven injuries in a fourteen week training study on twelve year old ice hockey players and six of these injuries were found to be game-related and the remaining one was re-injury during weights-related training.

From the evidence provided it seems pretty clear that injury is directly related to the quality of supervision and/or poor technique or both. Furthermore, strength development does actually reduce the risk of injury occurring during sport-related activities (Cahill & Griffith, 1978). Furthermore, if you are unfortunate enough to injure yourself, previous weight training has been shown to reduce recovery time from injury.

There are misguided reports of weight training actually making athletes stiff. There may be some Delayed Onset Muscle Soreness (DOMS), which occurs up to two days after cessation of a hard training session. Strength, however, does not cause stiffness; in fact improvements in

flexibility have been reported following a controlled weight training programme in children (Siegal et al, 1988).

In conclusion, weight training will not result in injury, providing the exercises are done in a responsible manner and quality supervision is provided. Furthermore, weight training will actually reduce the risk of injury during game-related activities! If only my colleague had known this twenty five years ago!

In conclusion it is quite clear that we need to influence the lifestyle of our young people and society as a whole. Folks, stop listening and recording information and knowledge. Start implementing the lessons that have been revealed to us. Let's get on with GPP and multi-sport skilfulness for lads and lasses who are between six and sixteen. It is not a case of either or, it's a question of a balanced physical diet through life. Then we can all retire happy.

More of the same merely produces more of the same - and we all know that's not good enough.

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