

Technical and Tactical Consequences of Modern Game Development

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Since the 1999 RWC, the game has consistently through the years evolved towards a High Volume-High Intensity type of game. Top international teams are now playing more per game as ever. Best teams in the world are now able to compete at higher volume and higher intensity than ever before, often in the range of 45% of Actual Game Time (AGT). I already analyzed, that to be a true contender for World Cup glory, a team should be able to play consistently and efficiently in the 45% AGT zone. As of today, only 3 teams in the world are able to achieve this feat: the New Zealand All Blacks, Australia Wallabies and Ireland. We previously saw through the analysis of the last phase of the 2007 Super 14 competition that South Africa seems on the brink to joining that exclusive club. European rugby in its vast majority is still struggling to get players in a 40% AGT comfort zone.

What allows these teams to play such an expansive game?

It is the savvy combination of three fundamental elements:

- Technique
- Physical conditioning
- Tactical astuteness

Fundamentally, to play a fast paced game with great continuity players must develop superior technical skills in order to keep the game flowing. Meanwhile, players must be in superior physical condition as accelerating the pace will induce more fatigue and less time of recovery between bouts of high intensity efforts. Fatigue is public enemy #1 in sport, and it would be about time coaches and athletes start to realize this fact. Last quarter technical failures, poor decision making and lack of tactical astuteness is generally due to a high level of fatigue (lactic acid accumulation leading to neuromuscular impairment). Therefore, for players to be able to remain in the comfort zone at 45% of AGT, they must develop their conditioning to push farther the fatigue's limit. With 10 minutes to go, 5 points down, on the 7th frame of play, players still must see clearly what is in front of them, read the game properly, communicate well options, make the proper decision at the right time, be there at the right time and not knock on the ball at the crucial moment or stupidly clear the ruck from the side because players would act as on auto-pilot due to the accumulated fatigue. Well skilled and conditioned players can achieve *consistently* this feat. Consistence here is an extremely important word: it has to happen repetitively all the way throughout the 80 minutes of the game and not sporadically from time to time.

How could this be developed?

To quote a famous saying of French playing and coaching legend Pierre Villepreux: "the system makes the men, not the men the system". In other words: all segments of development must come from a common frame of thoughts and actions to develop what is the best in the interest of all. A developmental system must take into consideration the

three parameters above mentioned and work on them through a systematic approach involving short, medium and long range goals, which must be reassessed on a regular basis. All of this will not happen overnight and must be developed as part of a sport and rugby culture.

It is not conceivable today to work early on the technique and expose young players to tactical development, meanwhile thinking that physical conditioning will be developed at later stages. All segments are tightly meshed together and therefore ignoring one of them would render the final product incomplete if not obsolete. Of course developing the technical and tactical aspects of the game is extremely important to maximize players' skills and awareness, but the notion of superior achievement through optimal physical fitness should be ingrained in the early stages of the formation. Moreover it should be kept fun!

It is in the human nature to wish for the immediate satisfaction of a desire, and even more so in our materialist societies. In the case of sport, the simple fact to practice the sport, and in our case, playing rugby is mostly enough for the vast majority of players. In most instances, young players will see a direct connection between skill / tactical development and game improvement. They will mostly not see the connection with the physical conditioning part which they generally see as a chore and rightly so as it is rarely presented in a valuable and fun way.

The concept of having the physical development of the young players bound to the idea of technical and tactical development is paramount for a balanced progression towards mastery of skills. Moreover, the fun to train and play will increase as players' capacities increase too. It is of vital importance to educate young players in the early stages on how their body functions under physical stress, and how a progressively loaded training plan will improve all factors for playing excellence. The explanations have to be given in accordance of the level of knowledge and maturity of the players, but nonetheless it is about time to stop taking the players for idiots who will not be able to understand what is done and why. The information, given simply, has to be adapted to the level of biological and psychological age groups the players belong. It is part of a culture, and certainly a responsible way to develop players on the long term: explain, practice, assess, explain, practice, assess etc...

In most (western) European countries the physical conditioning of athletes often takes place to late, when a certain plateau has been reached through skill automation and relative mastery. It does happen because most systems do not acknowledge the fact that physical conditioning becomes a limiting factor of performance around puberty time. When they do realize it, it is too late. Already important stages of development through pre-puberty and puberty have been missed. This fact is consequently an open door to the temptation for some to "catch up" the missed stages through illegal performance enhancement substances. Well conditioned and recovered athletes/players do not need performance enhancement drugs. They already are right on target and keep developing.

Moreover, specialization in sport and within the sport (position play in team sports for example), also occurs too early in Europe. How many times have we heard that "because he always was a big guy, he plays prop for as long as he can remember"... Is this truly a perfect way to help in a player's development? Young players should have a multilateral approach

concerning sport development, with participation in as many individual and collective sports as possible at school or club levels. It actually is the purpose of most elementary and Junior High Schools sport development programs, but has this been explained to us when we were kids or to the kids now? What can we expect from a bunch of kids in JHS putting a shot around when their focus is on playing rugby? Why should they participate in such a perceived boring activity? Has the why ever been explained to them?? In any circumstances, time should be provided for kids to practice as many sports as they can. They will benefit for it at later stages, during their specialization time, and they will most probably have a lot of fun in practicing so. All kids should have regular fun practices of gymnastics, swimming and track & field activities at the bare minimum.

Accordingly, should conditioning programs approach be the same: gradual, educative, fun (through games etc...), understandable, agreed upon, and measurable. The pre-puberty and puberty stages of a player should be used efficiently in developing the technique of strength and power skills for example in a friendly, sympathetic, low stress and low impact environment with very light loads to start with (medicine balls, empty barebells). In parallel rugby technical and tactical abilities will be refined from basic to advanced, with always a margin of progression possible due to later maturation and physical conditioning development.

Let's take a ruck situation after a tackle as an example:

Technically the players will progress from the tackle itself which is an individual action, to a collective effort for retention or turnover of the ball. They will learn to make the right decision in coming to the ruck for positioning and clearance, for communication throughout the process, and they will go hundreds of time through the technical motions of low body position, binding, clearance, impact, drive etc... They will practice until mastery of the skills involved and at different speed. Nonetheless, in a perfect situation, can we say that the technical aspect of it is immutable beside the tactical options offered? We would think it is not as once again, the physical conditioning development of the players will bring issues to solve. How? Well, when drilled and technically sound players hit a ruck, the result will be good. But when the same players have improved their speed and power by 15 to 20% through a well designed Strength and Power development program they will then hit the ruck faster, more powerfully, generating probably a quicker clearance of the ball. Can the support players deal with the increase of speed? Will they technically be able to cope with the increase of general movements speed? Probably not, this is where specific motor skill techniques must be reassessed and adapted to the new conditioning level of the players.

This will hold true for any technique involved in a rugby game: passing, tackling, scrumaging, running with or without the ball, and kicking. Name it! The technical aspect of each of these motor skills or group of motor skills will constantly change with physical improvement until the power and smoothness of the All Blacks breaking the gain line is achieved if ever! This will by extension also provide a wider range of tactical options, whose will have to be reassessed and practiced under the new light of speed and power improvement. This will occur every time there will be an improvement in conditioning. This is how we can safely state that the physical conditioning aspect of the game has become a limiting factor of

technical and tactical development. If there is no physical improvement, it means training became dull, which will generate a drop in performance in the motor abilities necessary to play the game. As a result technique will also suffer a plateau, dragging also down the tactical effectiveness of the team. It is a chain of events. Moreover, whoever ignores this fact is shutting down the players' and team's development. To develop technically and tactically, players must also develop physically through a systematic long term approach. There is no way around it!

This is where the superiority of New Zealand rugby lies today. They understood long ago this simple fact, and developed a well designed system of sport education where the balance of the programs is only matched by the long term goals of a nation thriving for excellence and a healthy youth growth. New Zealand is producing the best rugby system in the world as for now, epitomized by the national teams of the All Blacks and the Black Ferns, their female counter-part. They produce top tri-athletes, skippers, rowers, sports and strength/conditioning coaches. All of these highly trained persons are in high demand throughout the world for their expertise, knowledge and "savoir faire" Why? Because of the system which created them from early on to maturity in their sport, and sport coaching endeavors.

To be able to produce top athletes and rugby players, the system should take into consideration all parameters of development from the stage of initiation (6-10 years of age) all the way to high performance development (19 years of age +), keeping in mind that rugby players reach technical, tactical and psychological maturity at around 27 years of age.

A Long Term Periodization Training for a Rugby Player would look like this:

Multilateral 6-14 years		Specialization 15+ years	
Initiation 6-10 years	Athletic Formation 11-14 years	Specialization 15-18 years	High Performance 19 years +
Pre-puberty	Puberty	Post-puberty / adolescence	Maturity
<ul style="list-style-type: none"> • Basic skills development • Coordination • Flexibility 	<ul style="list-style-type: none"> • Skill automation • Flexibility • Anatomical adaptation • Individual tactical skills 	<ul style="list-style-type: none"> • Skill perfection • Flexibility maintenance, agility • Speed • Team related tactical skills • Anatomical adaptation strength development loads < 80% 1RM 	<ul style="list-style-type: none"> • Skill maintenance and improvement • Flexibility maintenance • Agility maintenance • Speed • Strength and Maximum strength • Power • Individual and team tactical skills, position related

Adapted from Bompa, 1999, 2000

During the multilateral years, the players would practice as many sports of their interest as possible while during the specialization years, although multilateral activities would still be present, they will not constitute the core of the training any longer. Time will have come for sport (in our case: rugby) and position specialization (at around 18 years of age or later).

With such a long term plan in place, players develop gradually all the links of the chain of events. Of course a careful observation of the players should also take place as no one matures at the same speed and early maturers will develop differently than late maturers. Some management will often be needed to follow up and optimize results. Moreover, by reaching the high performance phase, players will be fully ready for Maximum Strength, power and other related bio-motor enhancements. At around 20 years of age, the player is fit, technically and tactically sound, has prepared his muscles, tendons and ligaments during

the last few years in order to support the increase of the training loads in all segments of the development process specifically for the Maximum Strength and Power training which will increase his/her speed, agility and overall power for the game. In so doing, players also minimize chances of injuries, which usually occur through overuse and lack of proper recovery time. Players are fresh, and ready for the challenges of high performance play ahead. In knowing so, they also gain in confidence, mental toughness and overall maturity. Such a system develops responsible athletes and players through a responsible education.

We live in a world of fast food, quick achievement and recognition where quality is often sacrificed for easier and more marketable means. Castles built overnight are mirages fading away in the face of a simple reality check. We must relearn patience, commitment, willpower and the genuine path of success building. There are no shortcuts to excellence! Few realize this today, but I believe it is about time for some to shaken the system they belong to or fear to remain limited within the usual chaotic non sense that such undermined systems generate.