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Editorial

Welcome to issue 52 of the ITF Coaching and Sport Science Review, which is the final edition for 2010. This issue includes a variety of articles on subjects ranging from physical conditioning and flexibility training, to psychology, perfectionism, and tennis10s progression.

This year has seen 5 successful Regional Coaches Conferences taking place across the continents, showcasing the latest advances in tennis coaching, teaching methodology and tennis specific sport science research. The ITF Regional Coaches Conferences in 2010 were conducted in partnership with Olympic Solidarity and the Regional Associations (ATF, COSAT, COTECC, and CAT).

The first of the regional workshops was the Southern African conference, which took place in Pretoria from the 18th to 21st September. The conference attracted 120 coaches from 15 African countries. The second of this year's regional conferences held from the 20th to 24th September was the Central American & Caribbean Conference in Puerto Vallarta, Mexico. The workshop attracted 250 coaches from 16 COTECC nations. The 13th South American Regional Coaches Conference at Mar del Plata, Argentina had 470 coaches from 10 countries participating and took place from the 5th to 9th October. The fourth regional conference of 2010 was the North African conference, held in Hammamet, Tunisia from the 6th to 9th October. More than 100 coaches attended this workshop. The last of the ITF Regional Conferences for 2010, was the Asian Regional Coaches Conference, hosted in Subic Bay, the Philippines from the 2nd to 6th November with 110 coaches from 17 countries taking part. In addition to the ITF conferences, the 34th Tennis Europe coaches symposium took place from the 15th to 17th October in the University for Sports, Moscow, Russia. This event which is part funded by the Development programme saw over 160 participants, with a record level of 34 countries represented.

In 2010, the ITF saw an increase in the overall Regional Coaches' Conference participation from 900 in 2008 to 1050 in 2010. These biennial events provide the platform for coaches to receive the most up to date information which can then help them to further develop tennis in their respective regions. All of the presentations at the conferences

were filmed and will be available shortly to view on the Tennis i-Coach website. We would like to thank the speakers, the host national and regional associations as well as Olympic Solidarity which helped to fund the 5 workshops and contribute to their success.

This year also saw an important change aimed at increasing participation among the 10-and-under age group. Tennis 10s, 10 and under tennis played with slower balls on smaller courts, was launched in 2009 and at the ITF AGM in Washington this summer, an amendment to the Rules of Tennis for 10-and-under competition was overwhelmingly approved. The new rules, which will come into effect in January 2012, will mandate modified courts and the use of slower balls at this age. The use of regular balls will no longer be permitted in 10-and-under competition, and instead a slower red, orange or green ball must be used on one of three court sizes. This change in the rules of tennis will not only make tennis easier and more fun for this age group but will also help in player development and the development of more all round players as it is possible to implement advanced tactics with the slower balls that would normally not be possible with the regular ball on the full court.

Progress with ITF resources throughout 2010 has seen the translation of 'Strength and Conditioning in Tennis' into Spanish. In addition to the CSSR and specialist publications, the ITF Tennis iCoach website remains at the forefront of online coach education. Early 2011 will see the launch of the new Tennis iCoach website, with up to date and current research available to coaches across the world. Those interested in finding out more about the website should visit the following link, www.tenniscoach.com for a tour of the site.

We hope that you will find this 52nd edition of the Coaching and Sport Science Review interesting and that it will allow coaches across the world to build on and develop their coaching knowledge and to be more effective in their work as coaches. We also hope that you will continue to make use of all the other coaching resources provided by the ITF which can be viewed on the weblet; (<http://www.itftennis.com/coaching/>).

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Red to orange.....what does it really mean?

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ABSTRACT

The present article discusses the potential challenges young players will face when making the progression from Red to Orange tennis. Changes in ball flight and court size among others are proportionately much larger when compared with physical growth and maturation of the child making this step. Key issues in the red to orange transition are highlighted, along with appropriate solutions for successfully guiding juniors at this critical stage.

Key words: Tennis 10s, development, red, orange.

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INTRODUCTION

Here are some theories about coaching 8 and under players in a Red Tennis 10s programme:

1. Being a really good kids coach is one of the toughest jobs in tennis. It's easy to be a bad coach, but being a great coach to Under 8's in a red programme is hard.
2. The quality of the player you see on the orange court is largely down to the quality of the work done on the red court.
3. Moving players from red to orange is one of the most important decisions you can make, and you have to get it right. Delaying is not so bad, but if you move them up too early, the sight of little players who are starting to develop sound basic shapes, game understanding and an excitement about playing and competing is replaced by young children floundering in a space which is too big to cover, having to fight to control the body, the racket and the ball.

This article looks at the facts associated with moving young children from red to orange. Much of it is really obvious; so obvious perhaps you have never stopped to think about what they actually mean for the kids you teach! It will also point out just how important it is to get the technical foundations and the playing environment right to give your players a chance not just to continue to play, but to continue to improve for years to come. Just stop and think! Good coaches move at the pace of the learner (bad coaches move at their own pace, the wrong pace or no pace at all!). If we follow that logic to its conclusion, the court needs to grow at the pace of the learner too. Just imagine that you decide to move your player from the red group to the orange court. In the week that they complete their last lesson on a red court, they will average approximately 127 cms in height (World Health Organisation statistics). They will still average approximately 127 cms the following week when they start on the orange court! But in the same period the court length has increased by 7 metres, and the average ball rebound height has increased from 95-110 cms to 110-115 cms. Can you start to see the challenge for a young child?!

It is hoped that as you read this, you will reflect on the abilities of your players and on your own coaching. Is there more that they should be doing in the red programme, can they be doing it better, and could your coaching improve? Let's explore things in more detail.

COURT DIMENSIONS

Depending on which manual or guidelines you read, a red court for official competition will measure 11 x 5.5m to 12 x 6m. The orange court should be 18 x 6.5m for singles (ITF, 2010). In square metres, this means an increase of 93%. The percentage increase for the height of the child over the same time could be 0%.

COURT WIDTH

We know that a key part of coaching is to teach players to receive the oncoming ball, move and prepare, strike and recover. Movement requires coordination and therefore has to be taught and learnt. An increase in court width from the red court to the orange court, assuming we are going from 5.5 or 6m at red, to 6.5m at orange, is a proportionate and realistic increase in the court coverage required across the baseline, and therefore should not present many challenges for young players.

COURT LENGTH

An increase in court length from 11 or 12m to 18m means that the court is 3 - 3.5m longer at each end. This means that an awful lot suddenly changes in the way that a young child needs to play the game:

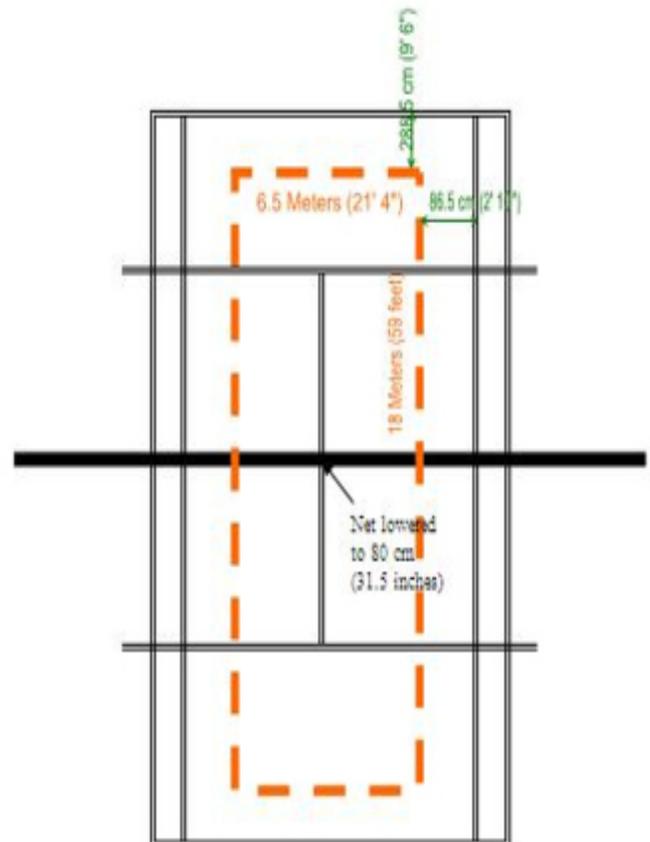


Figure 1. Orange court dimensions.

1. The court is longer, so the player needs a longer and faster swing to propel the ball the additional distance to keep the opponent at the back of the court. This will be helped by progressing to a 63 cm (25

inch) racket. Has the player learnt the correct shapes on the red court based on simple shoulder-led swings and stable wrist which do not break down under pressure and which can be replicated consistently? If the answer to this is “no”, then it is unlikely that the player will cope with the increase in swing length (changing from a straight take back or very shallow loop at red to a longer loop at orange). Remember that players have to learn control and rhythm first, before faster racket head speed is added.

2. Greater racket head speed should eventually result in more consistent depth being achieved in rally situations but this will take some time. However, the likelihood is that greater distance will also result in higher trajectories to help achieve the greater distance required. Higher trajectories mean higher bounces, which, coupled with the slight increase in compression of many orange balls, results in higher average contact points. Have your players developed eastern or semi western (not extreme!) grips by the time they leave the red court, so that they can progress on the orange court to deal with higher bounces?

3. A longer swing with a steeper path and a semi western grip will result in more topspin. The extra length of the orange court facilitates greater spin. By the time they leave the red court, can your players cover the width of the court and play from out wide? On the orange court you can be sure that they will have to play more balls from wide positions and from short angles.

4. Take a look at the distance from the orange baseline to the net. Now consider the stride length of 8 and 9 year old players. It's a long way to the net, so asking players to approach is a tough expectation. Can your late red players change the tempo of the rally by hitting a little harder or flatter with intent and accuracy and do they have the receiving skills to recognise an opportunity to approach? If not, it is likely that they struggle to approach with ball speed and accuracy to allow them the chance to approach the net? Do they have the ability to play a basic volley on the red court, so that they can take this to the orange court and learn to volley from close to the service line (they may not get much closer to the net than this due to the distance)?

THE BALL

1. A longer court means more time, but orange balls are smaller so they travel faster. They have slightly greater compression, so they fly and bounce a little faster too. Players should in theory have better technique, and so overall we can expect increases in ball speeds. Players should be developing better depth perception (depth perception in young tennis players lags behind width perception) and so should be seeing the ball more quickly.

2. Higher trajectories and slightly higher average bounces will result in more variation in the height of their contact point when the opponent attacks fast and wide. It's fair to say that on the red court the range of contacts should be narrower, usually between knee and stomach height. At orange, as the players face more offensive opponents, the range of contacts extends, not just to knee to shoulder height but also wider and shorter as more spin and angles are used in attack. Do your players have good receiving skills by the time they leave the red court so that they can continue to progress on the orange court? They need to establish consistent contact points early on, so that the range of heights of contact points can be extended as the game becomes more dynamic (attacking and defending) on the orange court.

3. Higher trajectories and slightly higher average bounces mean that players will have to play from far from the net and well behind the baseline when the opponent plays high and deep. Has your player learnt to see the ball early and move backwards at red, so that they can defend effectively from deep on the orange court?

HEIGHT OF THE NET

A red net should measure 80 cms. Given that the orange game is played on regular courts with lines added, many coaches forget to lower the

net to the same 80 cms (or can't due to an absence of net winders!). This effects the serve and tactical intentions:

1. I've already explained that whilst the length of the court has increased significantly in a short period of time, the player won't have grown much at all. The same can be said about the distance to the opponents service box and the height of the contact point on the serve. Have your players learnt to serve with a fluid action, using a consistent ball toss? If not, the serve cannot progress to become an offensive stroke, and will instead be attacked by better opponents at every opportunity.

2. A net height of 80 cms allows for angles to be created on wide serves, even when the extra distance of the orange baseline is taken into account. But players can only serve offensively if they are able to apply racket head speed and spin to the serve. By the time your players are leaving the red court, can they serve consistently and fluidly with a chopper grip? If not, they'll struggle and this needs to become a priority at early orange. The lack of spin, direction and ball speed does not create the angles which are offered by a longer court, extra width and a lower net, and the player will struggle to build or attack with the serve.

3. Good basic technique on the serve is also essential to control the longer 63 cm (25 inch) racket which is needed on the orange court. If the technique is not well developed with the 58 cm (23 inch) racket on the red court, the 63 cm will be even harder to control.

SOLUTIONS

The aim of this article is not to stop you moving players from red to orange. It's more about making you think, just taking time to reflect and understand the issues thrown up by the change in the playing environment. Progression and moving players up is good, provided that it is done in the right way and at the right time. It's a decision to be made by the coach, not the parent or the player! Nor is it simply about progressing players as soon as they pass their 8th birthday. Hopefully you are now a little clearer about the physical, physiological and technical considerations that also have to be considered. These are your field, one in which you need to be the expert, so take your time and make the right call. There are some things you can do to phase the orange court in, to reduce the shock a little:

1. Gradually introduce the progression to orange by allowing players to double up for a set period as they are preparing to leave the red programme. If they can play on red courts and orange courts every week for a period of time, it provides a more gradual induction

2. Introduce the orange ball at the end of red. This will allow players to get used to slightly different ball characteristics. Make sure you do it the right way round – moving to the orange court with the red ball won't work!

3. Turn the players round so they face a different way. Your players will have grown up playing across the court on the red court. At the end of the red programme, try playing from the service line over the 80 cm net. From there you can gradually extend the length of the orange court, as you probably did at red.

4. Parent education is vital. We spend so much time with the players but we ignore the ones who make the decisions, pay for lessons and drive them to sessions. Good communication to parents is essential. If they understand the issues at stake when progressing players, they are more likely to be on your side. Work with them rather than without them.

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Strive for, but do not demand perfection

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ABSTRACT

This article reviews the concept of 'perfectionism'. Five common misconceptions about perfectionism are discussed. Contrary to popular belief, perfectionism does not necessarily represent a negative attribute in a player or coach. Rather, 'perfectionism' can be a positive and normal attribute associated with tennis excellence. Practical implications for coaches are highlighted.

Key words: Perfectionism, beliefs, positive attribute, psychology.

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INTRODUCTION

"Today I left as a winner. (It) was perfect. ... Pete Sampras is perhaps the greatest player we've ever had. To be on the same level as Pete, my former hero in a way, is already very nice, but I'm not there yet. I haven't won Paris, Davis Cup, the Olympic Games, many other tournaments I'd like to win again. But, you know, if I don't win them, it's okay too. I'm having a great run. I just want to enjoy my tennis and not just put myself under pressure all the time. I'm just happy with such a good run, especially at Wimbledon, the most important tournament of my life. I'm loving every moment of it". (Roger Federer, 8 July 2007, after defeating Rafael Nadal to win his 5th consecutive Wimbledon singles title).

In a recent publication, Flett and Hewitt (2005) suggest that a number of champion tennis players, including John McEnroe and Serena Williams, share "a demonstrated history of extreme perfectionism" (p. 17). One may well ask, is this a good or bad thing to be characterised as a perfectionist? What does it mean to be a perfectionist? How does one become such and can/should one change?



This article explores these issues by examining several myths about perfectionism and highlighting implications and recommendations for tennis coaches. Let's start by examining common misconceptions about perfectionism and its relationship with sporting excellence.

MYTHS

Myth 1: Everyone knows what perfectionism means

It is understandable that perfectionism may mean different things to different individuals, given the numerous definitions of the term to be found in the literature. Perfectionism has been loosely defined as the setting of excessively high personal standards of performance (Burns, 1980; Pacht, 1984) to a more recent, and formal, conceptualisation as "a personality style characterised by striving for flawlessness and setting of excessively high standards of performance accompanied by tendencies for overly critical evaluations of one's behaviour" (Stoerber & Otta, 2006, p.295). While no one single definition of perfectionism has been agreed upon by perfectionism researchers, it is universally accepted that the central aspect of perfectionism is the setting of, and striving for, high standards.

Myth 2: Perfectionists are all alike

As with any personality style or trait, no two individuals are the same and this is true for perfectionists. While perfectionists share the

characteristic of setting and striving for high standards, they differ on a variety of other interrelated characteristics. This has led researchers to categorise perfectionists as one of two types, 'positive' (also labelled normal, adaptive, healthy, functional, active) or 'negative' (also labelled neurotic, maladaptive, unhealthy, dysfunctional, passive) perfectionists (Stoerber & Otta, 2006).

The key distinguishing characteristics of the positive versus negative perfectionist are listed in the following table.

POSITIVE PERFECTIONIST	NEGATIVE PERFECTIONIST
<ul style="list-style-type: none">• Ability to view him/herself successful even if not the 'perfect performance' – enjoys his/her accomplishments• Ability to accept personal and situational limitations – realistic in monitoring and evaluating own performance• Motivated to excel and focuses on doing things right• Relaxed but careful attitude; confident in abilities• Disappointed with failure but renew efforts & commitment• More likely to complete tasks on time• Balanced thinker	<ul style="list-style-type: none">• Rarely satisfied with achievements - tendency to see him/herself as a failure• Preoccupied with, and overly critical of, results. Inability to accept mistakes• Motivated by fears of failure and concerns about disappointing others• Tense & anxious about tasks; compulsive tendencies; doubts abilities and concerned with quality of performance• Self-worth dependent on results• Tends to procrastinate• 'Black and white'/'all or nothing' thinker (perfect or failed; good or bad)

Table 1. Differences between the positive and negative perfectionist (adapted from Burns [1980], Hamachek [1978] and Pacht [1984]).

To briefly summarise the features depicted in Table 1, negative perfectionists set extremely high standards however, being overly critical and intolerant of mistakes, they are never satisfied with results (believing results could always be better). In contrast, positive perfectionists accept personal and situational limitations, and the inevitability of making mistakes, and in doing so, enjoy their purposeful pursuit of excellence.

It has been suggested that the critical distinction between positive and negative perfectionism lies in an individual's demand for perfection (Gotwals, Dunn & Wayment, 2003). While all perfectionists strive for perfection, negative perfectionists also feel a need to perform flawlessly (i.e., unable to accept being, and performing, less than perfect). As summarised by Zinsser, Bunker and Williams (2001), there "is always value in striving for perfection [in sport] but nothing to be gained by demanding perfectionism" (p. 302).

Myth 3: Perfectionism is not associated with sporting excellence

The accuracy, or otherwise, of this myth depends on whether one is referring to positive or negative perfectionism (as described above). It is true to say research supports that negative perfectionism is an antecedent to burnout among young tennis players (Gould, Ulry Tuffey & Loehr, 1996) for example. It is, however, equally true that research (e.g., Bloom, 1985; Hardy, Jones & Gould, 1996; Gould, Dieffenbach & Moffett, 2002) supports many of the most successful world class athletes are positively perfectionistic in their orientations. These latter research findings have led sport psychologists to propose the positive form of perfectionism is indeed “a trademark feature of high performance athletes” (Gotwals, Dunn & Wayment, 2003, p. 19).

Myth 4: Perfectionism can be traced to parental influences in childhood

This myth may have some validity but does not completely portray the complexity of the perfectionism developmental process. This process is thought to be an ongoing one that does not solely rely on the early experiences of children. Undoubtedly parental factors have a strong impact early on in instilling values and thereby shaping a child’s character (Bloom, 1985; Csikszentmihalyi, 1996). However, other factors such as the role of significant others (e.g., coaches, teachers) and the impact of society’s values and cultural influences need also be considered.

Myth 5: ‘Once a perfectionist, always a perfectionist’

Since perfectionism is learned (versus inherited), most individuals can develop, moderate and/or change such an orientation (Hamacheck, 1978). Granted some individuals will require assistance in this process (e.g., work with a sport psychologist) but change is generally possible, and in some cases, desirable. While each case must be judged on its own merits, a possible case warranting change may, for example, involve a player who invariably ‘drops his/her bundle’ on the first mistake he/she makes in a match, continually berates him/herself on his/her standard of play and suffers badly from the strain of competition.

RECOMMENDATIONS FOR COACHES

Several implications for coaches can be drawn from the above discussion. Most significantly, it is important for coaches to be aware, and mindful, that perfectionism in themselves and/or their players does not necessarily represent a negative or dysfunctional characteristic. It can also be positive and normal, and indeed, a key quality for sporting excellence. Here are a couple of suggestions for coaches to consider in working with players.

RECOMMENDED APPROACHES
<ul style="list-style-type: none"> • Focus on doing one’s best rather than worrying about mistakes and errors • Enjoy striving for perfection rather than being afraid of falling short of it • Appreciate what has been achieved rather than pondering or stressing about the discrepancy between what has been achieved, and what might have been achieved, if everything had worked out perfectly

Table 2. Recommended approaches for coaches to adopt and pass onto players (adapted from Stoeber and Otto, 2006).

In adopting these suggestions, coaches will embrace the benefits from the pursuit of perfection but avoid the perils of demanding perfection. Striving for, but accepting being less than perfect, is the perfect way to go – just ask Roger Federer!

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Situation specific training: Del Potro's backhand volley

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ABSTRACT

Being prepared for the stresses on the muscular system during tennis can improve our performance and in particular can help with the prevention of injuries whilst playing. The present article will use sequence photos to help in designing the appropriate exercises to prepare for a specific shot. The three exercises selected are tennis-specific and will aid primarily, but not exclusively, the high backhand volley.

Key words: Backhand volley, conditioning, situation-specific.

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INTRODUCTION

Play tennis to get fit, or get fit to play tennis? We get this question quite often and the answer is "yes" to both. However, for the purpose of this article we will focus on getting fit to play tennis. Being prepared for the stresses on the muscular system in particular can help in the prevention of injuries while playing. We will use sequence photos to help in designing the appropriate exercises to prepare for a specific shot. As we look at a sequence of Juan Martin Del Potro hitting a high backhand volley, we can look at his stroke technique. Understanding proper stroke technique can help us to enhance our own strokes. In addition, we will look at three exercises to help us prepare physically for this type of shot. The three exercises selected are tennis-specific and will help not only improve our performance but also assist in staying injury free.

PHOTO SEQUENCE

Photo #1

In this photo we see Del Potro just coming out of his split step. Notice that he has already recognized that the ball is coming to the backhand side, so that his turn toward that side has already been initiated. His upper body is relaxed with the racket head up and well in front of the body. The left hip has already turned to the direction that he is planning on moving and his knees are slightly flexed to allow him to push off in the direction of the ball.



Photo #2

The unit turn has been completed meaning that he doesn't just bring the racket back, but the whole upper body has rotated to his left. The non-dominant arm has assisted in this rotation and is still touching the throat of the racket. The knees are almost fully extended because he recognizes the height of the incoming ball. The dominant arm (racket arm) is up high with the upper arm parallel



to the ground and the elbow bent at 90 degrees. This will allow him to hit a powerful volley with depth. His eyes stay focused on the ball.

Photo #3

Del Potro is just about to make contact with the ball and shows perfect balance and concentration. Due to the height of the ball, he is off the ground yet in control of his body. His eyes are still completely focused on the ball while his racket arm is now fully extended with a firm grip. His body is still sideways to the net allowing for a proper swing path in the direction of his intended target.



Photo #4



In the initial phase of the follow through, we can see terrific extension in both the racket arm as well as the legs. It is interesting to note that because he is in the air, we see the left leg moving in the opposite direction of the racket arm. If you remember from your high school physics class, that is because to every action there is an equal and opposite reaction (Newton's 3rd law of motion). The position of the head shows us that his body is still very balanced throughout this stroke.

Photo #5

Del Potro has now completed the follow through and is absorbing the landing by bending the right leg. He has hit a forceful volley as can be seen by the length of his follow through as well as the action of the left arm (see Newton's 3rd law above). His upper body is almost completely perpendicular to the court indicating excellent balance.



Photo #6

The backhand volley stroke has now been completed and Del Potro is recovering toward the middle service line. During his split step, we can see the foot of the right leg already pointing in that direction since he anticipates having to cover more of the deuce court. The left hand has been brought back to the throat of the racket and the racket head is above the wrist which will allow for an efficient unit turn for next stroke.



Figure 1. Complete shot sequence.

EXERCISES

The following exercises are designed specifically for tennis and will physically prepare a player for a better execution of the high back hand volley. As previously noted, the adoption of these exercises will also contribute to injury prevention and overall physical conditioning.

One-arm high to low rotation (aka one-arm chop)



Figure 2. Starting position.

Figure 3. Finishing position.

This exercise can be performed using a cable pulley machine in a gym or using elastic tubing. You will start with the cable (or tubing) above shoulder height. You will reach across your body with your right hand and grab the cable. From this start position you will contract your

core muscles (lower back and abdominals) and slowly pull with your shoulder back across your body at a 45 degree angle. This exercise develops core strength and stabilization as well as strength in the important muscles of the upper back and shoulder.

Lunge with tubing hip extension



Figure 4. Lunge extension starting position.

Figure 5. Lunge extension finishing position.

This is a complex movement which works on the muscles and movements of the lower body and core seen specifically in photos 4 and 5. You will stand 3-4 feet away, facing the cable machine in the gym (or elastic tubing tied against a fence). Connect the cable (or tubing) to your right foot/ankle. Perform a lunge motion on your left leg while simultaneously performing a hip extension movement with your right leg against the resistance provided by the tubing. Repeat this motion on both legs.

Explosive medicine ball high-to-low throw



Figure 6. Starting position for high to low medicine ball throw.

This is an explosive exercise for the core and upper body. Using a relatively light medicine ball (3-8lbs) your start position will be 5ft away from a wall, in a keeling lunge position (right foot forward) parallel to the wall. The medicine ball will be held above your left shoulder with arms straight. From this position you will forcefully release the medicine ball across your body into the ground. This movement develops power in your hips all the way through your arms in a high-to-low rotational direction.

Muscles involved:

Lower body – Gluteals, Quadriceps, Soleus, Gastrocnemius

Mid section – Abdominals, Obliques, Back Extensors

Upper body – Serratus Anterior, Infraspinatus, Teres Minor, Posterior Deltoid, Rhomboid, Trapezius, Triceps, Wrist extensors

How anxiety affects tennis performance

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ABSTRACT

This article describes how anxiety affects all three systems of psychological functioning: how we feel, how we think, and how we behave. The interaction between these three systems is explained in terms of a negative cycle of anxiety, which often inhibits tennis performance, particularly in the competition setting.

Key words: anxiety, arousal, choking, avoidance.

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INTRODUCTION

Anxiety is a universal phenomenon (Somers et al., 2006). Depending upon the situation, anxiety may be a helpful emotion. In sport, anxiety might motivate us to do things we might not do otherwise – e.g. practice more in order to play better tennis. However, whilst anxiety is at times useful, on occasions it may become dysfunctional – that is, it may interfere with our ability to behave in helpful ways.

THE THREE SYSTEMS: BODY, MIND AND BEHAVIOUR

It is important to understand that anxiety affects our bodies, our minds, and how we act (Seligman et al., 2001); and that there is a complex and ever-changing interplay between those three systems – the somatic, cognitive and behavioural: how we feel, how we think, and what we do when we are anxious.

Somatic anxiety

When we are anxious, we experience physical changes or feelings in our bodies. These feelings are triggered by the production of adrenaline in order to meet the demands of the 'fight or flight' response. The effects of adrenaline on the body's organ systems are many (van Zijderwald et al., 1991), but include: changes in respiration and heart rate, increased muscle tension, alterations of temperature, and general over-arousal of the nervous system.

Cognitive anxiety

Cognitions are thoughts. An individual's cognitive style is the way in which they typically think about themselves, others, and the world. Certain cognitive styles and ways of thinking are strongly associated with anxiety (Riskind & Williams, 2005). The central idea behind the cognitive model of anxiety is that it is not events in the external world which cause us to be anxious; it is our perception of those events which produces anxiety as an emotional reaction. For example, if we have played badly and lost all of our recent matches, then the next tournament we enter is likely to trigger memories of our earlier feelings, leading to anxious cognitions, including thoughts of self-doubt.

When we feel anxious, our cognitions tend to relate to perceptions of danger – either physical (the threat of actual bodily harm) or psychosocial (for example, the loss of self-esteem). Anxious cognitions commonly include thoughts of self-doubt, worry, danger and threat.

These anxiety-related perceptions typically lead to negative automatic thoughts – thoughts which enter our heads without being reasoned through and are associated with unpleasant emotional feelings. Negative automatic thoughts commonly begin with statements such as, 'I can't.....I won't be able to...'. They are often underpinned by dysfunctional assumptions about oneself or certain situations, such as: 'Anything other than 1st place means I am a failure'. Dysfunctional assumptions may become particularly prevalent at times of stress.

'Stress' is defined as the difference between our perception of the demands placed upon us and our perceived ability to cope with those demands (McGrath, 1970). This definition recognises the importance of the situation but also of the individual and their beliefs about that situation. That is why the same situation might be seen as stressful by one person but as a challenge by another.

If we feel able to cope with the demands placed upon us, then we are unlikely to feel much stress. Anxiety arises when we perceive the demands placed upon us to be greater than our perceived ability to cope with those demands. This mismatch typically produces fear and anxiety. When both somatic and cognitive anxiety is excessive, they will inhibit performance.

Performance expectations

In a tennis match, it is unlikely that we are going to be under much physical threat; but we are likely to be exposed to psychosocial threat, for example threat to our self-image from fear of performing badly. If we play an opponent whom we perceive to be far below us in ability terms, then we expect to win easily and we are unlikely to feel much anxiety as a result. Similarly, if we play an opponent whom we perceive to be far above us in ability terms, then our expectations of success will be low – we expect to lose and so we are likely to feel less anxiety. Anxiety is more of a problem when we play someone we perceive to be close to us in terms of ability. These matches should, by definition, be close, and therefore a likely cause of tension.

Arousal and muscular tension

High levels of arousal and anxiety lead to increased muscular tension. As sporting success depends heavily on muscle co-ordination, high levels of anxiety can impede physical performance and cause a player to tighten up and become over-tense. Muscular tension, even at low levels, can interfere with co-ordination (Weinberg & Hunt, 1976), resulting in poor performance.

Muscular tension can make our legs feel heavy, resulting in slow reactions and poor or clumsy footwork. Muscular tension can cause tightness of breath as our



breathing becomes too rapid and shallow, meaning that we tire easily. If the match is close and goes to a tie break or a third set, we may have expended so much unnecessary energy through nervous tension in our muscles that we tire and fall at the crunch points.

All of us have experienced at least some of these difficulties. Every player, regardless of ability, will have felt tension in their shoulders and arms whilst serving, especially at important points in the match, leading to a poor serve, or the dreaded double fault.

Have you noticed how double faults seem most likely to occur at crucial and deciding moments in a match, and that one double fault in a game can so often lead to two or three in succession? Muscular tension is a major contributor to this sudden performance decline. The serve is technically the most difficult skill to learn and is often the difference between winning and losing, especially in a game between two evenly matched players. Like any skill under pressure, that which is most difficult, least mastered or most recently learnt is the first to fail.

Negative automatic thoughts

Increased anxiety also influences an individual's ability to concentrate, and think clearly and positively (Williams & Elliott, 1999). In a tennis match, an anxious player may be prone to a whole series of negative automatic thoughts aroused in the specific on-court situation which predispose them to feel anxious. Such thoughts might include: 'I missed that serve, therefore I am a rubbish player', or 'Don't double fault again!'

Choking

Professional sportspeople are not immune to negative automatic thoughts, somatic arousal, tension and under-performance. In golf, it is called the 'yips'; in other sports, it is sometimes termed the 'jitters'; but in tennis, it is referred to as 'choking'. Choking under pressure occurs when a player fails to perform, typically in important situations (Weinberg & Gould, 2003).

Rituals

Many sportspeople engage in superstitious behaviours or rituals (Schippers & Van Lange, 2006). Amongst tennis players, some like to wear their 'lucky' socks; male professionals sometimes do not shave whilst they are on a winning streak; some players like to continue serving using the ball with which they won the previous point.

At the extreme but not that uncommon level, some players engage in rigid routines throughout their entire pre-match preparation – staying in the same hotel; everyday eating the same meal at the same seat in the same restaurant; listening to the same music whilst being driven by the same driver to the tournament - and so on.

On court, if you look closely you will see players' highly developed rituals for the use of the towel between points; bouncing the ball a set number of times before serving; and in the chair between games adjusting items of clothing, such as tying and retying their laces.

Whilst these superstitious behaviours may help with focus and concentration and

take the player's mind off external distractions, one of the major reasons why players engage in these and other superstitious rituals is in order to ward off anxiety. Whilst at surface level they may seem harmless, the difficulty with these rituals and superstitions is that, for some players, if

for any reason they are prevented from engaging in their rituals, their levels of anxiety rise higher and higher and can interfere with their ability to focus upon what really matters and the only thing over which they have any actual control - the game.

Adaptive rituals do have an important place in tennis; they may assist the player manage anxiety by giving them an increased sense of control over their pre-match preparation; they may also allow the player greater control over what they do on court, and even some control over the behaviour of their opponent (e.g. in slowing down or speeding up the match). Rituals are also especially useful in focussing concentration in the present by distracting the player from unhelpful thoughts, or by shutting out external distractions.

Self-fulfilling prophecies

How often have you known in your heart that you are going to double-fault on your second serve? How often have you doubted your ability when serving for the match, that you would not be able to hold to your serve and your opponent would get back into the match and beat you? These are examples of so called 'self-fulfilling prophecies' – variations of negative self-talk that can contribute toward muscular tension, inhibit coordination and produce mistakes. They can cause the player to focus so much on what not to do that they somehow almost forget what they have to do – for example, they become so focused on avoiding double-faulting that they lose all sense of where they should serve.

Avoidance

Because anxiety is typically felt as uncomfortable, it commonly leads to certain behaviours, usually involving avoidance, which act in the short-term to reduce unpleasant feelings – for example, 'I will avoid playing him/her again because I was too anxious during the game' or 'I won't play in anymore league matches because I was too anxious'. In the short-term, avoidant behaviours reduce anxiety; but avoidance breeds more avoidance, and in the longer-term simply reinforces and strengthens the likelihood of anxiety occurring again in a similar situation. Avoidance is therefore unhelpful. To conquer our fears we need to face up to them in order to learn that they can be overcome and that we have control over our feelings and behaviours. The table below summarises some of the somatic, cognitive and behavioural consequences of anxiety.

THE BODY	THOUGHTS	BEHAVIOUR
Breathlessness	Apprehension	Fight
Palpitations	Doubt	Flight
Dizziness	Worry	Freeze
Light headedness	Fear	Avoidance
Muscular tension	Impending danger	Poor co-ordination
Chest pains	Threat	Poor technique
Cramps	Negative thoughts	Clumsy footwork
Headache	-I can't	Easily tired
Nausea	-I won't be able to	Double faults
Perspiration	-I will never	Choking
Hot and cold flushes	-I always fail	

Table 1. How anxiety affects the body's thoughts and behaviours.

The negative cycle

Heightened bodily arousal, negative automatic thoughts and avoidant behaviour can then set up a 'vicious cycle' in which being on-court can trigger bodily sensations of anxiety, negative thoughts and images, leading to an increased perception of psychosocial threat, resulting in heightened autonomic arousal and more negative thoughts, therein physically and mentally inhibiting one's ability to play the game



effectively. This is why so many club players under-perform in competitive situations – they play freely and brilliantly in a 'knock' or social game; but in a ladder or league match always seem to lose to players with much less technical ability.

BREAKING THE CYCLE

In order to break free from the cycle of anxiety, so that the player may approach their optimal performance level, it is important to differentiate between helpful and unhelpful anxiety. Unhelpful anxiety in the form of negative automatic thoughts and rituals which hinder performance should be clearly identified and challenged before they become deeply embedded and resistant to change. Players should instead be helped to build up a set of flexible routines that they can implement in different match situations, as well as practice and apply appropriate, constructive thoughts patterns to reduce anxiolytic effects. E.g. "I'm nervous because this is where I want to be, if I wasn't nervous it would mean I didn't care!" Anxiety that motivates should be encouraged; players should approach situations e.g. competition, as frequently as possible so that they become accustomed to match pressure and tackle performance anxiety head on.



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Training flexibility in young tennis players

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ABSTRACT

Flexibility training is crucial in tennis. Many lower limb injuries in young players occur due to poor flexibility. The present article stresses the importance of flexibility training in young tennis players, in order to create a professional habit that will bring about benefits and will help to prevent injuries at later stages.

Key words: training, injury, elasticity, joint mobility.

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INTRODUCTION

During tennis training, both active and passive flexibility have to be trained (Ortiz, 2004). Both residual and submaximal flexibility are key to the amplitude of movement and to avoid injuries (Ortiz, 2004). Absolute flexibility is the maximum stretching capacity or the mobility range of a joint. Few sports require absolute flexibility development (gym, synchronized swimming, figure skating) and tennis is not among them. Residual flexibility is the optimal flexibility level, which, not being the maximum, goes beyond working flexibility. Residual flexibility is key for tennis, since it is essential to prevent injuries and to help perfect performance in tennis without any constraints to the amplitude of movement (for example, the high demand on the scapula-humerus belt on the serve). Finally, working flexibility, is the desired level for the production of an ample, free flowing and efficient movement. It is determined by technique and requires not only a stretching capacity of the muscle, but also requires appropriate elasticity of the ligament-muscle unit for a powerful and fast movement. Working flexibility, together with residual flexibility are of utmost importance for tennis players (Ortiz, 2004; Blandon 2004).

FLEXIBILITY CONCEPT

Flexibility is a term that is easily mistaken and is even considered as a synonym of elasticity or joint mobility, which can lead to misunderstanding in the literature (Ortiz, 2004).

The present research seeks to clarify the definitions of flexibility with a short review of the literature and of terminology related to flexibility (Ortiz 2004), suggests that in tennis:

- Flexibility means sliding with an ample separation of the legs; residual and submaximal flexibility being fundamental both for the amplitude of movement and to prevent and avoid possible injuries.
- Elasticity can be defined as recovering the neutral position after hitting when trying to return a ball. In this action, muscle and ligament elasticity and contraction capacity are key towards a dynamic and fast recovery to return to the hitting position.
- Joint mobility is the stretching capacity of the joints (flexibility) and fast recovery (elasticity).

In light of these definitions, Ortiz (2004) considers that when sports require fast and explosive actions with great amplitude of movements like in tennis, it is necessary to achieve a joint development of flexibility and elasticity, the combination of which is the factor that provides high levels of mobility (displacement and return) to a joint.

Training evolution and methodology

The inverse development of flexibility as we grow older is widely known (Alter, 1998; Delgado et al, 1997; Vila, 1999; Ruiz Pérez, 2004), and is the only physiological capacity that shows regression as physical development progresses. The main objective when training flexibility is not just

improving it but reducing its loss to a minimum. Maximum flexibility happens a few months after birth, and it begins to weaken towards puberty. During childhood, the development of flexibility is similar in boys and girls. Up to the age of 10-11 flexibility loss is minimal, being greater between puberty and 20-30 years of age, after 30 it becomes stable again and then it starts gradually decreasing depending on the training level of the individual.

Research suggests that children are most receptive to flexibility training between 6 and 10 years of age, and that work in this capacity should be practiced between two and five days a week at this time. Blanco (1995) considers that static flexibility can be trained from the first years in life, given the little muscular mass and elasticity of the sinews until puberty. However, for dynamic flexibility training, he suggests waiting until 8 to 11/12 with girls and 8 to 12/13 with boys since a certain level of strength and coordination development is necessary. Vila (1999) in his evolution of flexibility analysis at different ages considers childhood as a time for a significant joint mobility growth; while many authors consider maximum development at puberty. At school starting age (6 years), the flexibility of children remains intact, but whilst muscles and bodies are growing, flexibility will inevitably start deteriorating. Therefore flexibility should be specifically trained so that this loss becomes more gradual in spite of the development of the muscular mass (strength increases tends to shorten the contractile components of the muscular cells). Vila (1999) suggests the following methodology:

- Up to the age of 10, general mobility training.
- Mobility is at its peak up to 10 years of age. Specific training is required to maintain it.
- Flexibility at the junior level does not have to be developed to maximum capacity, since other mobility components can harmfully or negatively be impacted in the long term.
- The development of flexibility/mobility is not the same in the different joint systems.
- Training should be appropriate to age.
- At early ages, mobility must be active, and towards adolescence when competition begins, exercises must be passive and static.
- Excess mobility is harmful for the muscles, so, it must be strengthened often at the expense of flexibility.

There exist many equally valid protocols for flexibility training in young tennis players, we suggest the use of the protocol for tennis designed by Anderson (1984) (Figure 1). We consider that it is important, at development ages, to set a protocol so that the athlete gets familiar with his task, finds it easy to remember and in order to create a positive habit in the player for later life.

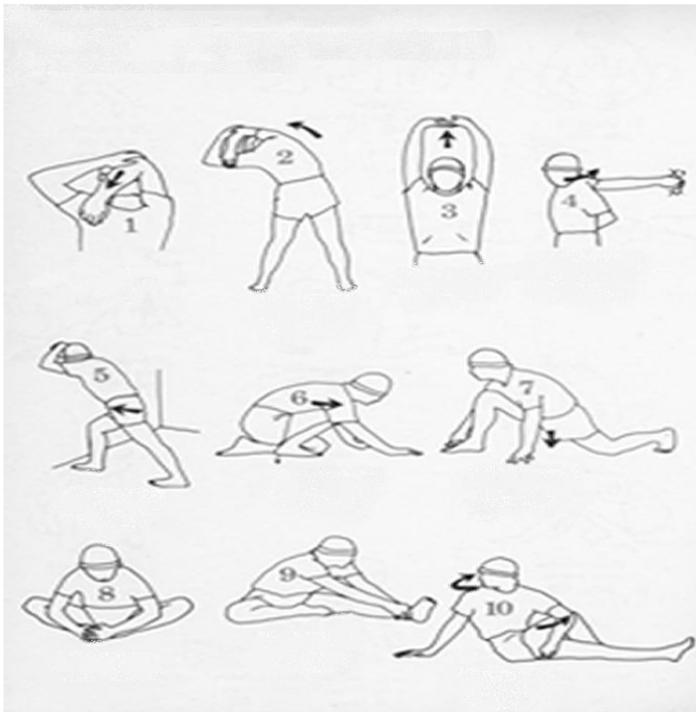


Figure 1. Protocol for tennis stretching (from Anderson, 1984).



CONSEQUENCES OF POOR FLEXIBILITY

Many authors (USTA, 2000; Le Deuff, 2003; Ortiz, 2004; Kovacs et al. 2007) have provided information on flexibility in tennis players by means of different tests. On the basis of these findings we can compare and appreciate the flexibility of our tennis players, but what happens if tennis players' flexibility is low?

In spite of what we may initially think, it has been stated that more injuries occur in the lower limbs than in the upper limbs in tennis (Pluim et al. 2006). The great majority of these injuries that occur in the lower limbs are caused by the following (Riewald y Ellenbecker, 2005):

- Lack of flexibility of the hip flexors (positioned at the top of the thigh in front of the pelvis). These muscles are important, not only because they sustain the length of the stride but also because Vad et al. (2003) found that the restrictions in the flexibility of the hip go together with lumbar (lower back) pain.
- Lack of flexibility of the external rotators of the hip. The capacity to rotate the hips is important towards generating strength, in practically every stroke, and to connect the lower with the upper part of the body.
- Lack of flexibility of the ischiotibials/hamstrings and quadriceps. Their flexibility is needed to move effectively, to sustain the peak strength of the muscles during explosive movement, and to prevent injuries in the legs and the lumbar area.

Ortiz (2004) summarises all that has been mentioned previously when he explains how "[there are] those famous and painful pelvic pains caused by increased muscular tensions and restriction of the kinetic muscular chain, which is made up of abdominals, adductors, and ischiotibials (hamstrings). This can result in tears and swellings of the tendons and ligaments that converge in the lower part of the iliac bone or pelvis". The difference in strength and flexibility existing in the lower limbs, between the extensors of the knee (quadriceps) and the flexors (ischiotibials), besides preventing optimal development of speed of displacement leads to those well known "strains" or "tweaks" as well as problems in the knee joint. In tennis, the player performs most movements half bent on his knees, greatly overstraining the quadriceps muscles, which leads towards a forceful displacement of the patella. In such case, the ischiotibials will have to perform the difficult task of stabilizing the knee, which is unstable and fragile when the person is in such position. The main cause of all problems of the

patella and the ligaments of the knee is a poor imbalance of forces and flexibility of quadriceps/ischiotibials of the player's legs (Ortiz, 2004).

As Ruiz-Cotorro (1996) states, "stretching exercises and wearing insoles often solve most injuries of the lower limbs" that occur when playing tennis (plantar fasciitis, injuries of the ligaments of the ankle, meniscal injuries or pathological problems of the patella, shortening of the ischiotibials...)

Busquets (1999), as cited by Ortiz (2004), makes up a long list of dangerous consequences derived from ischiotibials that have poor flexibility: ascension of the anteroposterior iliac spine, great extension of the front rectus, tendinitis of the knee and rotation of the knee with meniscal compression, lengthening of adductors, (contractures, tendinitis), lengthening of the larger sacrum sciatic ligament (sciatic pain), lumbar lordosis (lumbar sciatic pain), tensions of the lumbar square and the psoas, ending in pubic pain.



CONCLUSIONS

Flexibility has always been greatly overlooked during training sessions and is still overlooked by a majority of trainers and players alike. The aim of the present article is to underline how important flexibility and mobility training is towards preventing injuries and how necessary it is to include it when training young tennis players through to fully developed players. The present article believes that it is one of the basic

pillars of training, and that solid programmes for tennis development should be centered on flexibility. Therefore, the acquisition of good sporting habits, such as the regular practice of stretching exercises is a strong recommendation.

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An analysis of the game of blind tennis

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ABSTRACT

This research compared specific elements of the men's final of a blind tennis tournament to the standard game of top ATP professional tennis players in order to better understand the distinctive features and characteristics of blind tennis. The present rules and regulations of blind tennis allow the visually impaired to enjoy and compete in essentially the same way as normal tennis players.

Key words: Blind tennis, game analysis, match time, rally strokes

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INTRODUCTION

Blind tennis was created in 1984 by Mr. Miyoshi Takei and was originally called 'Visually Handicapped Tennis'. The first tournament was held in Japan at the National Rehabilitation Center for the Disabled in 1990. Traditionally, visually impaired versions of various sports are played on the ground and the floor. However, blind tennis is played in three dimensions - over a net, using a special ball that emits a rattling sound as it travels and bounces. The exterior of the ball is made of sponge with the rattling ping-pong ball at its core.

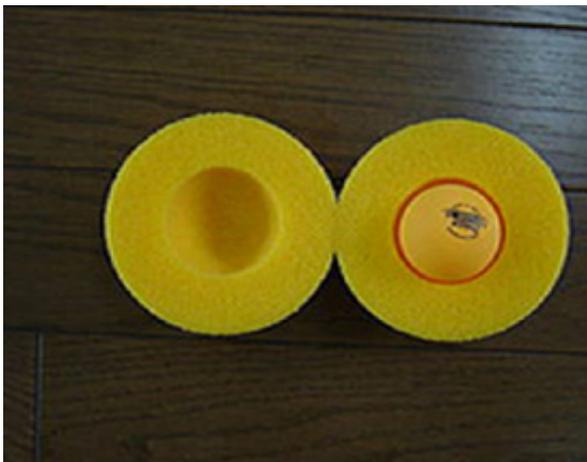


Figure 1. Blind tennis ball.

Purpose

The present study aimed to address a dearth of research into blind tennis. Specific elements in the men's final of a blind tennis tournament were compared to the game characteristics of an ATP tour match in order to better understand the distinctive features and characteristics of blind tennis.



Figure 2. Blind tennis player.

METHODS

Comparative analysis

- Japan Blind Tennis Tournament 2008 Men's Final:
Miyoshi Takei VS Yasushi Segawa
- Delray Beach ATP Tournament 2008 Men's Final:
Kei Nishikiori VS James Blake

This study compared the following elements over a span of 4 games, as blind tennis is played on a 4 game set rule.

- time in which the ball is in play
- time in which the ball is out of play
- maximum rally time
- minimum rally time
- average rally time
- maximum rally strokes
- minimum rally strokes
- average rally strokes
- first service percentage
- number and type of errors/winners

RESULTS

Match time

The following table compares total match time, the time the ball is spent in play, and the 'dead' time between points

MATCH TIME	TENNIS	B. TENNIS	B.TENNIS-TENNIS
Total match time	18m 10sec	20m 32sec	2m 22 sec
In play time during a match	4m 05 sec	6m48sec	1m33sec
Out of play time during a match	14m 48 sec	14m 27sec	21sec

Table 1. Time of play & time out of play in minutes.

Based on the above data, it appears to take more time to complete four games of blind tennis when compared with normal tennis. In addition to this, the ball in blind tennis is likely to be in play longer than in conventional tennis. Results also found that there is hardly any difference in the time that the ball is out of play. It is likely that the rule allowing blind tennis players to let the ball bounce up to 3 times before hitting may be the causal factor for the length of time that the ball is in play.

Rally time

The following table compares rally times in terms of the longest rally, shortest rally and also the average rally time.

MATCH ANALYSIS	TENNIS	B. TENNIS	B. TENNIS-TENNIS
Maximum rally time	28.03	33.33	5.3
Minimum rally time	2.4	3.02	0.62
Average rally time	6.7	11.9	5.2

Table 2. Maximum rally time, minimum rally time & average rally time.

Based on this data, the maximum, minimum and average rally time is longer in blind tennis. The smaller rackets, slower balls, the smaller size of the tennis court are all thought to affect the result.

Rally strokes

MATCH ANALYSIS	TENNIS	B. TENNIS	B. TENNIS-TENNIS
Maximum rally count	11	11	0
Minimum rally count	1	1	0
Average rally count	4	3.4	-1.1

Table 3. Maximum rally strokes, minimum rally strokes & average rally strokes count.

Based on this data, there is no significant difference in the maximum, minimum or average rally strokes between blind tennis and conventional tennis.

Serving percentage

MATCH ANALYSIS	TENNIS	B. TENNIS	B. TENNIS-TENNIS
Winner-first serve percentage	85	72	-13
Runner up-first serve percentage	71	53	-18
First serve percentage average	78.0	62.5	-15.5

Table 4. First service percentage.

Based on this data, the first service percentage is higher in normal tennis.

Winner and error classification

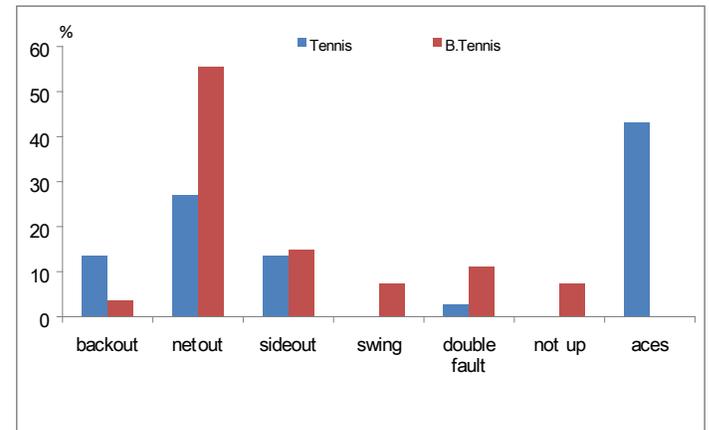


Figure 1. Number and kinds of errors and winners.

Based on this data, there are marked differences in missed shots where the player fails to make contact with the ball. In addition, winners and aces are considerably higher for normal tennis.

CONCLUSION

The data comparing blind tennis with normal tennis has revealed a marked difference in the playing time between the two games. The speed of the ball certainly effects this result, however the number of the bounces is thought to be the main cause for this discrepancy (totally blind players are allowed up to three bounces).

The present study also found significant differences in the number and kinds of errors and winners. Despite these differences, there were also a lot of similarities observed between both versions of tennis, such as the average rally strokes for example. It is concluded that given the unique characteristics of the game of Blind tennis, the present rules and regulations of allow the visually impaired to enjoy and compete in essentially the same way as normal tennis players.

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Tennis and the Olympic Games

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ABSTRACT

The present article historically documents the involvement of tennis as an Olympic sport, dating right back to the first modern games held in Athens, 1896. The extract from the book, 'Tennis and the Olympics,' follows the presence and absence of tennis in the Olympics, from 1896 to present day, and onward to London 2012.

Key words: Olympics, amateurism

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INTRODUCTION

The Olympic Games, which originated in Greece around 776 BC, were revived in modern times by a French nobleman, Baron Pierre de Coubertin. Born on the 1st January, 1863 in Paris, he was a brilliant scholar but not an athlete. He always took a great interest in sport and the effect this had on society.

For years he had visualized the inception of sporting championships to include all the world's nations. Healthy competition, where the reward came from the activity, was his aim. Any monetary, material, or business connections would immediately nullify a player's amateur status.

With this vision in mind, de Coubertin invited sportsmen from around the world to participate in a conference at the Sorbonne in Paris in June 1894. At this meeting there were 79 delegates representing 49 organisations from 13 nations. Here the new movement was established as the International Olympic Committee (IOC) with its members being Viktor Balck (Sweden), Aleksei Butorsky (Russia), Pierre de Coubertin (France), Willibald Gebhardt (Germany), Jiri Guth (Bohemia), Ferenc Kemeny (Hungary) and Dimitrios Vikelas (Greece). The last named was elected President and de Coubertin initially acted as Secretary General, but in 1896 he became President, a post he held to 1925.

Appropriately, the Committee decided that the first Games should be held in Athens in 1896. On the 11th April, King George of Greece formally opened the first modern Olympic Games.



TENNIS AT THE OLYMPICS

Surprisingly, lawn tennis was one of the nine sports chosen for the first Olympics. There appears to be no record as to why this was so. The lawn tennis programme consisted of Men's Singles and Doubles events, played on three courts in the middle of the Velodrome, at the conclusion of the cycling each day. 13 players from six nations actually hit a ball, with an unknown Irishman, John Boland, winning both titles. A start had been made.

The games for 1900 were awarded to Paris. Ladies were invited to compete in some of the peripheral events. In contrast to 1896, the standard of play of the lawn tennis was extremely high and had on show four Wimbledon Singles Champions — Harold Mahony, Laurence Doherty, Reginald Doherty and Miss Charlotte Cooper — all from the British Isles.

The IOC allocated the 1904 Games to St. Louis in the heart of the United States, no doubt with the thought of expanding the frontiers of sport. St. Louis was hardly in a position to attract competitors to the Games from Europe and beyond, who would have had to devote much time to the lengthy travel involved in those days. The upshot was that the two lawn tennis events, Men's Singles and Doubles, attracted 32 competitors, but all except one were from the home country. This was hardly expanding world competition.

Originally scheduled for Rome, the 1908 Games were reallocated to London, when the Italian authorities were forced to withdraw due to financial problems. King Edward VII and Queen Alexandra opened the Games and gave great support throughout. The participation of ladies was, by now, well recognized. Both indoor and outdoor lawn tennis tournaments were held in well established venues.

The 1912 Games held in Stockholm were regarded as the best organized so far. Led by King Gustav V, the people of the city took much interest in all the events, which were attended to full capacity. For the first time electrical timing equipment was used and an official poster issued. As four years earlier, indoor and outdoor lawn tennis tournaments were staged but the former, played in early May, attracted so few competitors that the idea was abandoned in the future.

After the hostilities of WW1 had ceased, Antwerp was chosen for 1920. On show for the first time was the Olympic Flag, and the Olympic Oath. The number of lawn tennis competitors attending was satisfactory, but some parts of the management of the event were poor.

Four years later, the Games were held in Paris to honour the retirement of de Coubertin. After these Games, feelings in the lawn tennis world ran high against the IOC. Although recognition was given for having attracted double the number of countries and competitors to take part in the tournament, the organization had been in many respects very poor. The hospitality towards the players had been practically non-existent. When they first arrived at the ground the stands were unfinished as were most of the courts and the dressing room accommodation was primitive. However, with the Ladies assigned to a large wooden shed with a tin roof and provided with only one shower, the men suffered more as they had to walk nearly half a mile for their facilities. Reports stated that at times the players' tempers became frayed and in turn the umpiring suffered. The Olympic spirit was very much under strain.

No lawn tennis authority could be blamed for the situation as the officials appointed by the IOC had very little experience in running a tournament and the International Lawn Tennis Federation (ILTF) was not allowed to take part. Following a string of events related to the

definition of amateurism among others, the ILTF and IOC broke away resulting in the absence of tennis as an Olympic event.



No one could possibly have envisaged however, that this disagreement would mean that lawn tennis would not fully appear in the Olympic Games for more than 60 years.

2000 SYDNEY	
Mens Singles	Y. Kafelnikov (RUS)
Ladies Singles	Miss V.E.S. Williams (USA)
Mens Doubles	S. Lareau (CAN)
	D. M. Nestor (CAN)
Ladies Doubles	Miss S. J. Williams (USA)
	Miss V. E. S. Williams (USA)
2004 ATHENS	
Mens Singles	N. A. Massu (CHI)
Ladies Singles	Mrs. J. Henin- Hardenne (BEL)
Mens Doubles	F. F. Gonzales (CHI)
	N. A. Massu (CHI)
Ladies Doubles	Miss T. Li (CHN)
	Miss T. T. Sun (CHN)
2008 BEIJING	
Mens Singles	R. Nadal (Esp)
Ladies Singles	Miss E. Dementieva (RUS)
Mens Doubles	R. Federer (SUI)
	S. Wawrinka (SUI)
Ladies Doubles	Miss S. J. Williams (USA)
	Miss V. E. S. Williams (USA)

Table 1. Olympic Gold medal winners of the 21st Century.

TENNIS, THE OLYMPICS AND THE OPEN ERA

In the meantime, the Olympic Movement went from strength to strength, with over 90 countries and 3,000 competitors, including nearly 700 ladies at the Games. Around 1963, voices were heard making a case for the return of lawn tennis to the Olympic Games. The ILTF put the



matter on the Agenda and when the Annual Meeting was held in Vienna on 8th July 1964, the matter was fully discussed. However with the coincidence of the open era, tennis was not fully re-instated until the 1984 games in Los Angeles. The tournament held during August in Los Angeles was a great succes, with over 6,000 spectators attending daily at the Los Angeles Tennis Center. There were two

singles events each of 32 competitors, from 34 nations, won by Stefan Edberg of Sweden and 15 year old Steffi Graf of West Germany. Later, Korea saw the acceptance of fully professional tennis by the IOC with a number of changes to the format including seedings, wild-cards and the introduction of tie-break sets.

Now looking forward to 2012, the Games will be held in London for the third time. In 1908 the tennis tournament was held at The All England Tennis Club at their old ground situated off Worple Road at Wimbledon, the same club will stage the event 104 years on, still on grass but on the Church Road ground that is well known by all for hosting the modern day Championships, Wimbledon.

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A guide to a new mentality: Mindset in a nutshell

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ABSTRACT

This article discusses the 'Mindset' approach to the mental game of tennis. The article introduces the concept of Mindset, the philosophy and the six pillars upon which this mind set is grounded. It also provides insight into how to develop a positive mental attitude- 'Mindset' and with it guidelines for self-betterment on and off the court.

Key words: Mindset, philosophy, psychology

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INTRODUCTION

The philosophy

All around us, there are signs of a movement away from the lifestyle and way of thinking that are associated with the rat race towards a more conscious way of living and thinking. Mindfulness, slowing down the pace of life and stress management are all terms that no longer sound vague or esoteric.

We call the traditional mentality of judging, rationalizing and attachment to the past and the future 'story thinking'. The new way of thinking that Mindset advocates is governed by observing non-judgmentally, visualizing and focusing on the here and now. We call this balanced mindset 'action thinking'.

By changing your mindset, you will get the best out of yourself, and you will find yourself able to do far more than before with the same level of skill. Getting into a flow is within anyone's reach, provided you know what to focus on. Mindset is a mental guide that teaches you to change from story thinking into action thinking. You will learn how to be in the here and now, and to conquer the interference coming from the ego. Winning from yourself will become more important than winning from your opponent. Once you have mastered this way of thinking, you will always be able to give your best performance.

Someone who could serve as a good role model to everyone in this respect is Roger Federer. He says that in the course of his career he has increasingly learned how to relax and how to play one point at a time. He states quite literally that he finds it more important to outperform himself than his opponents. Other sportsmen in whom he recognizes the same mentality include the amazing tennis icon Pete Sampras and the Formula One racing driver Michael Schumacher. In all three cases, their success comes from a constant drive to perform at a higher level rather than to win from an opponent. They have learned to improve their own concentration to a level at which their achievements derive almost entirely from action thinking rather than story thinking. Of course, it hardly needs to be added that it is also their natural talent, self-discipline and determination that have made them better than the rest.

Developing mindset

In general we tend to resist change, because our usual patterns feel comfortable; changing patterns requires energy and effort, and is sometimes painful. We are always searching for excuses to avoid change. The only way of changing old patterns into new ones is through practice and repetition. Every day you practise means progress. This is an essential element of the Mindset philosophy. Shifting from story to action thinking does not mean that we have to turn our thoughts off altogether, it means finding new patterns to help us switch off the 'noise' of story thinking. Only then can we learn how to focus to the best of our ability.

In story thinking, there is a big difference between winning and losing; the result is quite obviously either one or the other. Action thinking

makes it possible to win every time. If you are bogged down in story thinking, you have simply won or lost, in sports terms, according to the scoreboard. In action thinking you can win twice: from yourself, and in addition, sometimes from your opponent too. You win from yourself if you set realistic goals for yourself beforehand, in a match as well as in a training session, and achieve them by carrying out your plan consistently and with discipline. You will learn to experience this as a victory. Eventually you will start to realize that winning from yourself is more important than winning from your opponent. And with this attitude will come a new feeling of self-confidence.

'My only goal is to win this match.' This is something you will hear sports people of all levels say more frequently than almost anything else. And the funny thing about this statement is that it essentially has no content at all. This winning does not serve any goal, no specific plan has been mapped out that can be worked on, it does not provide any guidelines as to what you hope to achieve, and all it does is add tension.

METHOD

The aim of Mindset is to provide a method that will enable people to develop mental resilience both in matches and in other situations. The method aims at consciousness-raising, with the ultimate aim of acting unconsciously. Eventually you learn to act on the basis of feeling and intuition.

The balanced Mindset of action thinking is attained by working on both attention control – the four concentrations (zoom, scan, feeling and thought) and the six pillars. The concentrations and the pillars are as the wings of a bird; if one of them doesn't work, the bird cannot fly. In this paper we only have room to deal with the six pillars.

We regard these six pillars as universally applicable.

The six pillars

1. Friendly eyes
2. Good mistakes
3. Curiosity
4. Self-knowledge
5. Self-discipline
6. Acceptance

1. Friendly eyes

Friendly eyes and good mistakes are the two most important 'pillars' on which to base your development as an action thinker. They are the foundation of achieving a balanced mind. If you look with friendly eyes, objectively and non-judgmentally – not just at yourself but also at the world around you – emotions will lose their power over you. This will make you less vulnerable, since you will not take everything personally. Here is an example: 'If my opponent tries to disrupt my game with intimidating comments or behaviour, I shall not get irritated or see it as a personal attack. I will not let it influence me. In fact I can even

understand why he or she might act that way.' Another example: 'If I get furious with myself for playing way below my standard, I will understand that I am doing the best I can at this given moment.' 'Friendly eyes' is a state of mind that every sportsman should pursue.



2. Good mistakes

If you boldly pursue a specific goal, you may not succeed straight away. In fact it would be quite odd if you did not make a few mistakes along the way, before you succeed in making a change successful and permanent. If someone walks off the court or field in disappointment after losing a match, he may deal with the defeat in two different ways. He can learn from what happened, seeing the match as a 'good mistake'. He can remind himself that progress is not always immediately visible and carry on optimistically down the path of personal development. Or he can look at the defeat as a personal disaster, which will close off ways of learning from it and make progress impossible. 'Good mistakes' is a way of reasoning that makes every situation a learning experience.

3. Curiosity

If you are curious about how you behave on and off the sports field, you will gather information to help you enhance your performance. This curiosity may be about how you are playing, and how your opponent is playing, but also about the emotions that come to the surface. Self-management begins with curiosity, and this includes open questions. For example asking your coach: 'What do you think the best way is for me to improve mentally?' The brain can be trained, just like a muscle. So curiosity is very valuable, since it leads to new discoveries that can help you to make changes. Once you realize this, there is no longer any such thing as failure. 'Good' and 'bad' become meaningless concepts: there is just scope for growth. Curiosity leads to self-knowledge.

4. Self-knowledge

Self-knowledge grows through shared knowledge. Self-knowledge does not only come from solitary reflection; more importantly, it comes from asking for open, honest feedback, for instance from your coach or team-mates. Self-knowledge will always remain limited if you are not open to the opinions of others.

Self-knowledge is an essential part of setting goals, since you need to know what is within your own capabilities. Everyone who is involved in sport needs to set a mental goal as well as setting goals in technique, tactics and fitness. It is crucial to choose a goal that is specific and achievable. What exactly are you demanding of yourself, why, and how are you going to go about it? From this situation you can really start changing things to your advantage.

5. Self-discipline

Letting go of old patterns creates space for change. Deploying new patterns calls for self-discipline, for which patience is absolutely essential. We all realize this, but how do we muster the energy to remain disciplined when the going gets tough? Reflecting on a daily basis about what you want to change and what your long and short term goals are, will motivate you to carry on. Realising what value this change will bring can make self-discipline a pleasure. We feel the need to emphasize that self-discipline is the only real discipline. The sportsman needs to find the fire from within himself, only then can a real change take place. The fact that you are doing everything that is within your power, gives you the fuel to continue and produces the beginnings of acceptance.

6. Acceptance

Once you are aware of what you need to work on and accept this, there will be more space to focus on your strengths. You can use your energy to focus on the positive instead of fighting the negative. This generates a sense of calm, as a result of which your self-confidence will grow. You will be more appreciative of your efforts, which will diminish frustrations and fears and increase your enjoyment. Your self-respect too will be boosted. This will improve your performance and make you into a more balanced player.

CONCLUSION

Mindset uses a concrete, simple, modern and accessible vocabulary. The terminology is neutral and objective rather than confrontational. This allows changes in mentality to be welcomed and motivating, instead of being resisted by pupils and players. Mindset provides sport coaches with a general framework for communication with their pupils, using one or two words instead of complex sentences. The philosophy deals with a number of tennis specific issues, including dealing with bad line calls, choosing a correct coach, tactics and self-discipline that will improve the player and person, both on and off the court.

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Preparing and evaluating a tennis match

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ABSTRACT

Tennis is a psychologically demanding sport and it is necessary to encourage players' responsibility and independence from very early stages. This article discusses the active role of the player when preparing an optimal and orderly routine for a match, followed by a competition plan as well as a rigorous match analysis. This way, players will be encouraged to consider lost matches as a possibility to learn from their mistakes, thus, avoiding the frustration of defeat.

Key words: Match evaluation, competition plan, tennis.

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INTRODUCTION

When observing the 15 and under matches at the Catalonia Championship in Spain, many of my players told me it was one of the most important competitions in the season. Much to my surprise, I noticed that such an important event had received little preparation on the part of the players. This lack of preparation will inevitably have an impact on the results of a player in the long run.

One of the players was wearing his eldest brother's tennis shoes because he had left his at home. On the next court, in mid July, another player was looking for a player not on court to go and get some water since there was no other source in the area. Her opponent was waiting for her mother to get a cap from the car. At the same time, yet another player rushed into the court without warming up because she had miscalculated the distance to the club when she left her home... What can we conclude then, after all these situations? That the match does not start with the first point but it starts with the training session the week before, and ends with that of the week after.

THE PREPARATION PROCESS

One of the most important aspects to improve as a tennis player is to avoid parents' overprotection and to make the player self sufficient and responsible for his matches for, unlike other sports, the tennis player is "on his own when facing danger". So, both coaches and players must use a competition plan which can be similar to the one attached in this article. This plan will allow for optimal preparation for a match, and will also allow the match to develop according to that plan, and also allow for analysis and reflection afterward.

18 and under players will often strive to perfect their strokes during training sessions from Monday to Friday, hitting an innumerable amount of balls which are fed at a speed and distance from a basket, much unlike those of a match. During the weekend matches, all the weaknesses that should be polished for the next match or during the season come to light. In a nutshell, the coach and player must learn how to understand failure to turn it into success through the matchplay process.

However, quite often the player will switch off after the competition and will forget about the match, in order to rest and resume the training routine on Monday with basket feeding... but, what about those technical errors, those mental lapses, those bad tactical decisions or that poor physical condition during the match? Will all that be forgotten? In short, the player will have spent long hours on court during the season, but, it is likely that not all of them will be quality hours that will foster optimal progression as a tennis player.

This article includes a match self-evaluation, which players must fill in themselves once the match is over in order to note errors as well as progress, by means of an analysis of the main psychological aspects; motivation, confidence, concentration and control of arousal during the different sets. They will also rate their physical condition and their different strokes between 0 and 10 considering the use of technique during the match and reflecting on how they have handled these problems during match play. This evaluation will lay emphasis on the performance goals for each match, so that the player can use the best practices he has tried to improve during the week. Performance goals can be layed out in the competition plan, on the following page.

Name: _____ Date: _____; Event: _____ Round: _____ Coach: _____				
Opponent: _____ History: W: 2 /L: 1 Result: 6/4: 2/6: 6/2 Evaluation: 1set: 8 : 2set: 5: 3set: 7 Total: 7				
Confidence: projects a powerful image; gets courage between points; believes he will win	8	6	7	6
Motivation: plays 100% each ball; grows and enjoys tough times; performance and not result oriented	9	2	7	6
Concentration: Focused on the ball and his opponent, keeps concentration on "Here and now"; uses routines between points and at change overs.	10	4	6	7
Arousal: keeps calm, does not get upset; gets constantly active and relaxed according to the situation;	6	3	10	7
<i>Which are the specific objectives for this match?</i>		<i>What do I need to improve?</i>		
Objective:	Note:			
1: Leg bend _____; _____ 2		1. Toss ball higher on 1st service		
2: Do not complain if I miss a point _____; _____ 7		2. Do not repeat strokes, change direction		
Tactical analysis:	Technical analysis:	Physical analysis:		
<i>Plan A: How am I going to play?</i>	FH: 8	Endurance	9	
Fast, short points; to his backhand, rush to the net and volley.	BH: 9	Strength	6	
<i>Plan B: In case the previous one fails.</i>	Volley: 10	Speed	8	
Defend, lifting and hitting drop shots.	Overhead Smash: 10	Relaxation	2	
<i>How am I going to play the next match?:</i>	DS: 8	Flexibility	7	
Aggressively, slicing backhand and rushing to volley	Lobs: 2	Arousal	1	
	1st Serve: 3	Leg work	10	
	2nd Serve: 6	Point recovery	8	

Figure 1. Example match evaluation form.

COMPETITION PLAN
<p>Equipment</p> <p>It is your office, make sure there is nothing missing.</p> <p>Racquets, outfit, energy food, water, first aid kit, money, shampoo, cocoa butter, kleenex, sun screen, grips, anti vibration dampeners, paper/pencil, sun glasses, towel, hat, contact lenses, clips, mp3, gloves, magazine).</p>
<p>Diet and hydration</p> <p>Complex carbohydrates, pasta, cereals, bread, fruit</p> <p>More than 1,5L fluid per match</p> <p>(Always drink to prevent a dry mouth, hydrate before you feel thirsty)</p>
<p>Warming up (If you want peace, get ready for war)</p> <p>Static: 20s x:(Gastrocnemius , abductors, ischiotibials, gluteus, quadriceps, biceps, forearms)</p> <p>Dynamic: (Continuous run, warming up, rope jumping, line sprints)</p> <p>Mental: music, I breathe and I feel: the 4 Cs: Concentrated, Calm, Confident and Competitive.</p>
<p>Rest (The three "Rs")</p> <p>RECOVER: I dry my sweat, drink, eat and breathe slowly.</p> <p>RECONSIDER: If I win : I do the same; If I am losing the match: reassess tactical objectives, consider plan B</p> <p>REACT: I accelerate breathing, get courage, hit and use energy.</p>
<p>Routines between points (Think easy...play easy)</p> <ol style="list-style-type: none"> 1. Positive physical response (if I am winning) and correction + shadow (if I am losing) 2. Disconnect: Recover (breathe deeply, take the towel, watch the strings...) 3. Connect: I encourage myself, follow my service/ return routine to concentrate).
<p>Match situations, reading the match</p> <ul style="list-style-type: none"> • If losing: Tennis has streaks, react and do something -The turtle: Slow down during change overs; change your game and your shirt, sit down, feel fresh like a new player, tie your laces. Be patient and attack with your favourite strokes to gain confidence. •When its even : EXHIBIT YOUR POWER!: Use your attitude and movements to show your guts, head and fitness. You don't only win using your tennis! •If winning: if you do not beat him, he will beat you! Keep your intensity • You win the 1st set and you are in trouble, you have hurt the bear that will react and attack; go all out in the 2nd set to kill. You've got him! • How shall I close the match? Like a snake with fast poisoned movements (winners), or like a boa constrictor choking your opponent with consistent matchplay. • Important points: (30-30; 4-4) they are just like the others but I will focus more on my concentration and on encouraging myself, on the strategy, on the ball and on my movements.
<p>After the match</p> <ul style="list-style-type: none"> • Acknowledge your opponent, greet the umpire, family members and coach (talk with him); stretch your muscles and go to have a shower; enjoy your success and learn from failure. (It is the way to improve!). If you lose the battle, dont miss the lesson.
<p>Notes</p> <p>Take notes down of key moments in the match, how you reacted, and how that reaction was positive, or could be improved in future.</p>

Table 1. Competition plan.

CONCLUSION

This article has tried to introduce two preparation and evaluation tools for competitive tennis matches in order to help players and coaches to get the best out of the coaching and competition cycle. These tools are a practical way to assist coach and player in the development of their tennis.

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The PIQ: a tool for assessing parental involvement in tennis

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ABSTRACT

Success in tennis is based on a combination of different social (e.g. parents, coach) and individual (e.g. training, genetics) factors. To date French tennis has no tool to evaluate the role of parents. In order to fill in this gap in the literature, the present study puts forward the creation and validation of a Parental Involvement Questionnaire (PIQ) measuring the three aspects of long term parental support: their logistical involvement (transport), their emotional involvement (encouragement) and their informational involvement (advice).

Key words: Parental involvement, parent-children relationship, factorial exploratory analysis, questionnaire.

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INTRODUCTION

In spite of the great number of people playing tennis, there is no denying that only a small percentage of them will reach the elite level. Indeed, success in tennis is determined by a combination of various environmental and social factors (Côté, Salmela, Trudel & Baria, 1995). Though talent (ITF CSSR 39, 2006) might determine success in tennis to some extent, factors such as the number of hours spent on court (training and competition) as well as the role of the coach and the parents also appear essential (Bloom, 1985; Côté, 1999 ; Durand-Bush, Salmela & Thompson, 2004).

Furthermore, research has shown that tennis players usually reach top-level performance after approximately 10 years or 10,000 hours of deliberate practice. This type of extended activity demands that the player be able to overcome three constraints: Firstly, they must develop a strong and constant motivation, sustaining prolonged and intense efforts – which are not always a pleasure. They must also gather all the necessary resources and be exposed to the appropriate environmental conditions - chiefly logistical and financial. As a result, the presence, help, and support of an athlete's relatives play an important part in his or her rise to the elite level (Hurtel, 2009), a fact that players don't hesitate to emphasise:

“My father would support me and follow me everywhere. He would pick me up from school and take me to training sessions and matches... [...] he had organised his professional life according to that. He was there all the time. You could say that he saved my career when I was young (Michaël Llodra).”

Parents play a significant role in the long term. They get involved in their children's activities logistically (transport), emotionally (moral support) and informationally (advice), during each progressive step to the elite level (Wolfenden & Holt, 2005).

The results from this research and identification of these characteristics was primarily achieved through retrospective interviews. The literature in this subject area, also makes use of questionnaires, albeit to a lesser extent. These, however, generally relate to British and American cultures and deal very little with tennis. When the present researcher identified the absence of a French equivalent to these questionnaires, it was decided to undertake the creation and validation of one. The aim of this article is therefore to describe the formulation process of this measurement tool.

PIQ (PARENTAL INVOLVEMENT QUESTIONNAIRE)

This questionnaire was created based on the existing literature on the role of family with regard to sport. In addition, interviews conducted with 36 parents of young tennis players (aged 11 to 16; either leisure or competitive players) have contributed to the enrichment and

specification of the tennis-related questions. Particular attention was also directed to the wording of the different sentences of the questionnaire that was to be filled out later by the parents of the players.

Version 1

The first Parental Involvement Questionnaire that was put forward was divided into three parts: Logistical Parental Involvement (LPI), Emotional Parental Involvement (EPI) and Informational Parental Involvement (IPI), each of which consisted of 10 questions. The LPI focuses on the frequency at which parents take their children to training sessions or competitions, on their presence throughout these events and on the efforts in terms of time to allow the player to play tennis. The EPI focuses on the moral support, reassurance, praise or encouragements that parents provide for their children. Finally, the IPI corresponds to parent-child discussions about tennis, in particular to the advice parents give to their children before, during and after training sessions or competitions. Note : The numbers at the beginning of the questions correspond to the order they follow on the document distributed to parents.

LOGISTICAL PARENTAL INVOLVEMENT (LPI)
2. I play tennis with him.
5. I invest a great deal of myself in terms of time to allow him to play tennis.
8. I help him with transport.
11. I come to see him play.
14. I adjust my working schedule in order to take him to play tennis.
17. I spend time with him for tennis.
20. I take him to his practice sessions and competitions.
23. I stay with him during his lessons or matches.
26. I make sacrifices so that he can practice and play matches.
29. I make efforts to take him to tournaments and/or training sessions.
EMOTIONAL PARENTAL INVOLVEMENT (EPI)
3. I congratulate him on his efforts after his lessons or matches.
6. I congratulate him on his achievements after his lessons or matches.
9. I encourage him.
12. I support him.

15. I am always present for him.
18. I provide moral support.
21. I reassure him.
24. I congratulate him on the positive aspects of his performance, even when he loses a match or makes errors during practice.
27. I cheer him up when he is down.
30. I comfort him when he is not well.
INFORMATIONAL PARENTAL INVOLVEMENT (IPI)
1. I provide technical and tactical advice.
4. I give him recommendations before and after his lessons and/or matches.
7. I make fair and constructive comments that help him progress.
10. I lend an attentive ear to his problems related to tennis.
13. I am someone he can turn to to talk about the technical and tactical issues in his game.
16. I encourage him to talk with me about the tennis-related questions or problems he has in mind.
19. I provide him with advice to overcome tough situations.
22. I talk with him about his tennis game.
25. I talk with him about matches and/or lessons.
28. I ask him questions about what he does during matches and lessons.

Table 1. Version 1, PIQ.

Version 2

In order to be validated, the Parental Involvement Questionnaire was completed by 209 parents (103 men and 106 women) of tennis players aged 13.5 years-old on average.

The collected data was submitted to a Factorial Exploratory Analysis in order to reduce the number of questions for a better internal coherence and to allow the tool to be used easily on court. The results of the analysis show that less questions makes for a more reliable questionnaire. Thus, the LPI questions that were retained are the following:

- I invest a great deal of myself in terms of time to allow him to play tennis.
- I help him with transport.
- I take him to his practice sessions and competitions.
- I make efforts to take him to tournaments and/or training sessions.
- I adjust my working schedule in order to take him to play tennis.

The EPI includes the following questions:

- I congratulate him on his efforts after his lessons or matches.
- I congratulate him on his initiatives after his lessons and matches.
- I provide moral support.
- I cheer him up when he is down.
- I comfort him when he is not well.

And lastly, the IPI contains the following:

- I provide technical and tactical advice.
- I give him recommendations before and after his lessons and/or matches.
- I make fair and constructive comments that help him progress.
- I am someone he can turn to to talk about the technical and tactical issues in his game.
- I talk with him about his tennis game.

This second version of the PIQ developed through the first analysis was distributed to 1200 parents and is currently awaiting for final approval (Confirmatory Analysis in progress).

PRELIMINARY RESULTS

Even though the questionnaire hasn't yet reached its definitive form, this second version foreshadows interesting results. Indeed, the analysis of averages and graphs has revealed differences related to the gender and involvement of the parents. Notes. LPI = Logistical Parental Involvement; EPI = Emotional Parental Involvement; IPI: Informational Parental Involvement. The scale of answers ranges from 1 to 7.

	MOTHERS	FATHERS
LPI	4.68	4.35
EPI	5.53	5.05
IPI	2.59	3.40

Table 2. Averages of the answers to the sub-parts of the questionnaire according to gender.

At first glance, there appears to be a meaningful correlation between the three kinds of parental involvement, meaning that regardless of gender, the more parents involve themselves emotionally, the more they become involved from an logistical and informational point of view, and vice-versa. However, mothers seem to provide more emotional support (comfort, reassurance) than fathers but give less technical and tactical advice than the latter.

Fathers therefore appear to be more interested in the performance-related aspect of the activity in the present sample, and strive to foster the success of their children, whereas mothers have more consideration for their well-being and are more concerned about the problems they might encounter during the activity.

CONCLUSION

It seems important to put more emphasis on the role of parents in relation to the progression of young tennis players towards the elite level. The Parental -logistical, emotional and informational- Involvement Questionnaire attempts to answer the need to measure this role. In the long term (after the completion of the validation of this tool), it will allow coaches to have a better understanding of the family environment of the player and to adapt their relationships to parents out of concern for positive, coherent and harmonious player development.

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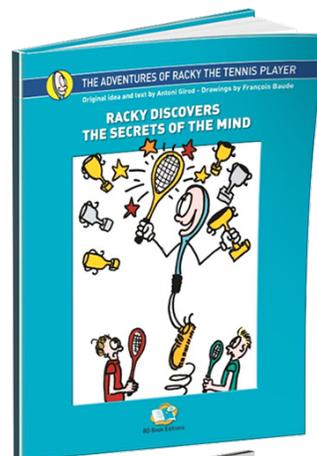
Recommended books and publications

RACKY DISCOVERS THE SECRETS OF THE MIND

Author: Antoni Girod, 2010. **Language:** English, French. **Type:** 50 page book. **Level:** All levels.

This book offers a unique approach to mental training, exposing the essential elements of the psychology of tennis. The author's combination of a theoretical and academic background, alongside comprehensive practical experience with many ATP and WTA players gives the book a lot to offer the reader. Within the book, each message is presented in two different and complimentary ways. Firstly, through text that will provide adults with very pragmatic advice, and secondly through attractive animations that will allow young juniors to discover the essentials of mental training, in a simple, practical and enjoyable way.

For more information visit: <http://www.tennismentalkit.com>

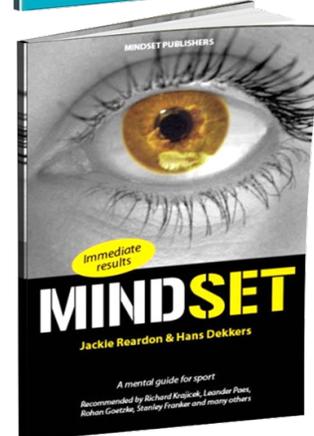


MINDSET

Author: Jackie Reardon & Hans Dekkers, 2008. **Language:** English, Dutch. **Type:** 150 page book. **Level:** All Levels

There is more to tennis than hitting the ball. Mindset describes a new way of thinking for the mental side of the game. It teaches you how to convert impatience, tension and frustration into self-confidence and pleasure. This mental guide enables athletes to get the best out of themselves, and has been adopted by thousands of athletes to date, with recommendations from players including Richard Krajicek. Mindset is a resource that pays attention to the person behind the player, encouraging success both on and off the court.

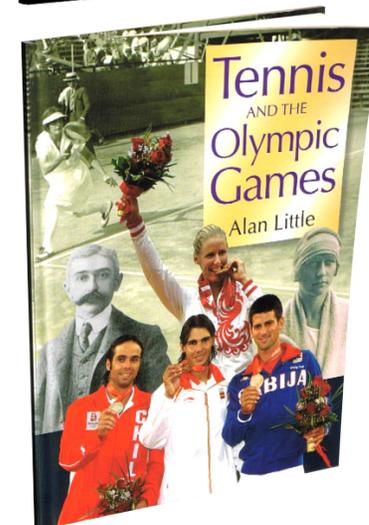
For more information visit: <http://www.themindset.eu/>



TENNIS AND THE OLYMPIC GAMES

Author: Alan Little, 2009. **Language:** English. **Type:** 176 page book. **Level :** All levels

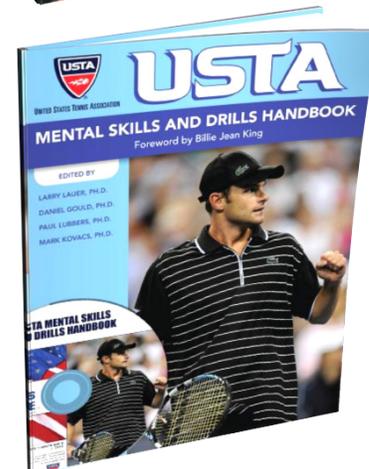
Tennis and the Olympic Games is the complete story of the history of tennis in the Olympic movement from 1896 to 2008. The 176-page publication describes tennis' role within the Olympics and explains the patterns of play at each of the tournaments over the years. Tennis made its first appearance in 1896, when only nine sports were represented in Athens. However, in 1924 the sport was side-lined over the issue of amateurism and didn't re-appear for 64 years, until 1988, when it was re-installed at Seoul, Korea. The publication has a large section containing detailed scores of all the matches that have ever taken place and includes tables summarizing the events. These are accompanied by fantastic photos and images, illustrating the fashions and styles of the different eras. The author of the book is Alan Little, the Honorary Librarian of the All England Club, who has established and developed the most comprehensive tennis library in the world at the Wimbledon Lawn Tennis Museum.



MENTAL SKILLS AND DRILLS HANDBOOK

Auhor: Larry Lauer, Daniel Gould, Paul Lubbers, Mark Kovacs. **Language:** English. **Type:** 450 page book. **Level:** All Levels

The USTA Mental Skills and Drills Handbook is written as a practical guide for coaches. It contains a variety of drills, activities, and on- and off-court coaching strategies that can be used to develop such mental-toughness skills as concentration, imagery and confidence in players. The skills and drills were designed for use with players of diverse ages and skill levels. The publication offers the best of sport psychology in one place that is well organised, easy to understand, and easy to apply on court. Coaches will have at their fingertips practical drills to teach confidence, motivation and relaxation and improve the overall mental abilities of their players.



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