MENTAL STATE.

In bowls, as in any other sport, if a player is determined to succeed, then mental state must be considered an essential factor. It is of little use being at the peak of physical condition and possessing excellent levels of motor skills if the bowler is suffering from anxiety, self doubt, poor concentration, minimal motivation, or lack of self-confidence. However, 'psychological preparation' for sport is possible. It is a skill that can be acquired in a similar manner as all other aspects of sports performance.

To understand the influences that can affect mental state, it is necessary to identify the main factors which, consequently, will need to be taken into consideration and acted upon.

Stress: is placed on both the mental and physical energy sources of everyone participating in sport. Stressors can be both **external** and **internal.** Typical examples that could face a bowler could be:

External:	Team Pressure**.**	**Internal:**	Anxiety
	Weather Conditions.		Self Confidence.
	Opposition.		Motivation.
	Spectators.		Fitness.
	Competition.		Personality.
			The presence of 'Significant Others'

All of these are self explanatory with the possible exception of 'The presence of 'Significant Others'. These could include such people the parents of the competitor or the competitor's coach. Both of these could have 'invested' heavily in the development of the competitor in terms of time, finance, effort and commitment.

It is possible that one or all of these factors can prey upon the mind of the competitor prior to the imminent onset of the competition. The competitor could then be faced with a significant increase in his or her anxiety arousal levels. The competitor might then misconstrue not winning not only as a 'failure', but also 'letting down' the parent or coach because of the effort or sacrifices these 'significant others' have made to competitor's current development and progress.

In a simplistic sense, these external and internal sensors could cause two broad reactions. Bowler 'A' may be able to accept the whole situation as an enjoyable challenge, but bowler 'B' may become distressed by one or more of these factors and will experience unmanageable levels of anxiety arousal.

As part of this paper is to serve as an introduction to the psychological aspects of coaching, some form of basic knowledge of the subject and a working comprehension of behavioural psychology would be pertinent to be introduced at this stage.

Many theories and papers have been written on behavioural psychology. However, the one that I intend to introduce is the theory and work carried out by Professor Steve Peters. Professor Peters is a Consultant Psychiatrist who specialises in optimising the functioning of the mind. He is a Dean at Sheffield University Medical School and has served as the Resident Psychiatrist with Sky Pro Cycling and as Consultant Psychiatrist for Liverpool Football Club. He has also been involved in twelve other Olympic sports including Tae Kwon Do and Canoeing. He has also been involved with England Rugby.

His book The Chimp Paradox, covers seven major areas of the psyche of an individual. These are:

1 The individual's Inner Mind

2 Understanding others.

3 Communication

4 The world in which we live.

5 Maintaining health.

6 Success.

7 Happiness

This paper will only concern itself with the Inner Mind, which is complex but which Peters explains by a model he calls 'The Chimp Model'. Peters suggests, quite correctly in my opinion, that acceptance of the 'Chimp Model' will help to understand and manage your mind.

Although it is based on complex science, it is not a theory or strict scientific fact, but approximates as a relatively easy working model. Hence it makes brain science easier to understand and use in daily life as well as in the field of sport by its use of concepts as well as facts

Because of the complexity of the human brain, Peters suggests that it is easier to consider the human brain as a system of seven brains working together. These seven 'brains' are

1 Frontal: 2 Parietal; 3 Limbic;
4 Temporal; 5 Occipital; 6 Cerebellum
7 Brain Stem.

Within the Chimp Management model, three of these 'brains' i.e. Frontal, Limbic and Parietal combine to form the 'Psychological Mind'. In the 'Chimp Model', the Frontal Brain is termed the 'Human', the Limbic Brain is termed the 'Chimp' and the Parietal Brain is termed the 'Computer'. Although these three 'brains' try to work together in harmony, they frequently get into conflict and struggle against each other to gain control, with the Chimp(limbic brain) often winning.

In life, including sport competitions, the 'Human' and the 'Chimp' continually receive information from around us. The 'Chimp' will interpret this information with feelings and impressions. He then uses emotional thinking to work out what he thinks is happening and forms an action plan based upon these criteria.

The problems that manifest themselves with the process of emotional thinking can be summarised as follows.

1 It jumps to conclusions;
2 It always thinks in ‘black and white’;
3 It can often lead to paranoid behaviour leading to
4 catastrophic and horrendous advice being offered to the ‘Human’ causing much pain;
5 Irrational;
6 Emotive Judgement; advice based upon feelings, emotions, impressions or its own paranoia. They are not open to reasoning.

The ‘Human’ interprets received information completely differently. This is achieved by searching for facts and established truths. They are then put together by a process of logical thinking from which a plan of action is formulated based upon the following criteria:

1 It is Evidence Based;
2 It is Rational;
3 It is in context with the situation and with a perspective on what is happening now and how important this to the overall scheme of things;
4 Recognises ‘shades of grey’ and affords a balanced judgement on the overall situation.

The key objectives in these testing situations are:

a: to recognise who is in charge, the ‘Chimp’ or the ‘Human’

b: to understand how the brains of the ‘Chimp’ and the ‘Human’ works and accept these.

c: to nurture and manage the ‘Chimp’ to get the best results for you.

Initially, all new information which is received by the brain goes to the ‘Chimp’. The ‘Chimp’ then decides if as a result of this new information, he has anything to worry about. If the answer to this is a negative, the ’Chimp’ will go the sleep and hand over the new information to the ‘Human’.

However, if the ‘Chimp’ considers this new information as a potential area of concern or as a probable threat, it will hold on the blood supply and make its own decisions on what should be done.

Unfortunately whereas the ‘Human’ will interpret and analyse the new information in a calm and logical manner, the ‘Chimp’ will analyse the same information in an emotional manner.

Problems can then arise when the ‘Chimp’ makes a suggestion that is not appropriate. We can then allow the ‘Chimp’ to control us. This can result in us becoming devoid of ideas on how we can stop the ‘Chimp’ from dominating us.

Prof. Peters maintains that if the ‘Chimp’ has taken control, the way to manage the ‘Chimp’ is by:

1 **Nurture:** if it feels insecure, you need to make feel calmer, happier and therefore consequently feeling secure. This ‘managerial process can be achieved by:

2 **‘Exercising’ the ‘Chimp’** in an appropriate private place and listening to it for as long as it takes. During this process, you should not make any comments.

3 Once the ‘Chimp’ has finished ‘Exercising’, it is now in an appropriate place to receive information, use facts, truths and logic. To continue calming the ‘Chimp’ thus being able to reason with it, Peters terms this process **‘Boxing the Chimp’.**

4 ‘**Bananas’:**
Another way to manage the ’Chimp’ is to ‘feed it bananas’ These are things the ‘Chimp’ wants that are given either as a distraction or reward. Feeding the ‘Chimp’ ‘bananas’ is not a very powerful way to solve problems, but in some circumstances, they can be an effective way to manage the ‘Chimp’ as a temporary measure. However, they should never be considered as a permanent solution as they do not usually tackle the cause of the problem.

The Computer:

The ‘Computer’ is managed by the Parietal section of the brain and potentially this ‘Computer’ is more powerful than the ‘Chimp’ and the ’Human’ because it is the reference source that both of them look to for help and guidance. It has a running speed about four times faster than the ‘Chimp’ and twenty times faster than the ‘Human’. Therefore, if it is well maintained, it is capable of executing commands with total accuracy before the ‘Chimp’ or the ‘Human’ has the opportunity to finish thinking.

Peters attests that the Computer possess the following four characteristics:

1: The **Autopilot**, which is a constructive or helpful belief or behaviour.

2: The **Gremlin** which is an unhelpful or destructive belief or behaviour that is removable.

3:The **Goblin** which is an unhelpful or destructive belief or behaviour that is firmly fixed and very difficult to remove.

4: The **Stone of Life** which contains the values and beliefs by which we live our lives

Functions of the Computer:

The functions of the Computer are two-fold:

1: Automatic Functioning.

2: Acting as a ‘ Reference Source’

1: Automatic Functioning:

Automatic Functioning is based upon learnt behaviours, learnt beliefs and automatic programmes. These have already been worked out consequently there is little effort required on an individual's part as a 'Human' to think.

The Computer receives input from both the 'Chimp' and the 'Human' and, having received the programme, will take over and allow the Chimp' and the 'Human' to stand back from thinking and interpreting. It is, in effect, programmed to think and act for us but only with the information we have told it to use. These stored beliefs and behaviours are therefore learnt by the 'Chimp' and 'Human' and stored in the Computer.

The Computer enlists the aid of the existing 'Autopilots' to achieve this. Autopilots are all the positive, constructive beliefs, behaviours and automatic functioning that help us to be successful and happy in life.

However, in opposition to the positivity of the Autopilots, Peters introduces the concepts if what he terms **'Goblins'** and **'Gremlins'** These 'creatures' are the opposite of Autopilots, that is to say unhelpful and destructive behaviour, beliefs or automatic programmes that are stored on the 'Computer'.

A 'Goblin' is usually entered into the 'Computer' during early childhood. At this time of life, the individual's 'Computer' tends to 'hard-wire' any information that is put into it. Therefore 'Goblins' are hard-wired into the 'Computer' thus making it extremely difficult to remove. Hence, the individual needs to learn methods of containing them. Usually, 'Goblins' occur up to the age of eight.

'Gremlins' usually occur after the age of eight. As 'Gremlins' are soft- wired, as and when they are found, they can usually be eliminated. It is important to comprehend this so that time is not wasted trying to do the impossible (however, it is possible to deal with these 'unhelpful creatures' once they have been detected and recognised).

Peters also maintains that it is very common for individuals to experience at sometime two 'Gremlins' in their 'Computers' These he terms:

The Twins of Unrealistic Expectation and Unhelpful Expectation.

If an individual's expectations are unrealistic or unhelpful it will almost certainly lead to very strong negative emotions such as frustration, anger or disappointment occurring within the individual.

An example of an 'Unrealistic Expectation' could be a player who believes that he always has to win to prove himself.

Playing a game of bowls can be good fun if the individual has the belief that it is 'just a game and hence the outcome is not of paramount importance'. However, this does not mean that he will not try. What it means is that he has perspective. On the other hand, if you believe that you have to win because winning reflects on your worth as a person, the game will become more intense and quite possibly unpleasant.

What the player holds as a belief will definitely affect the way in which he or she will handle outcomes or respond to them whatever they are. It is better therefore to have realistic expectations or, in some cases, hold no expectations at all.

Examples of other Gremlins include such things as:

1 Overreacting to situations.
2 Beating yourself up;
3 Worrying about decisions and therefore not making them.
4 Getting angry when you don't want to**.**

2: The Computer acting as a Reference Source.

There are three aspects to the 'Computer' acting as a reference. These are:

A: General reference with Autopilots and Gremlins.

B: The 'Stone of Life' with the Truths of Life', 'Values' and the 'Life Force'.

C: The 'Mindset'

A: General Reference with Autopilots and Gremlins:

Both the 'Human' and the Chimp' will use the 'Computer' as a memory bank for decision making. When any experience occurs, the 'Human' and the 'Chimp' will interpret what is happening and then look into the 'Computer' to inspect the previous experiences, beliefs or memories that have already been stored.

The subsequent decision that is then taken can be influenced by this stored information This is one way i.e. by using past experience that, 'Gremlins' and 'Autopilots' come into being. It also shows the way in which the 'Chimp' works very closely with the 'Gremlins'.

If the 'Computer' has an abundance of 'Autopilots' in its store, these will help to moderate or stop the 'Chimp' in its tracks and settle it down. This, in turn, will give the 'Human' a chance to look for and use 'Autopilots' and stabilise the system, thus giving the person a feeling of calm. Having lots of 'Gremlins' in the 'Computer' is very destabilising for both the 'Chimp' and the 'Human'.

B: The 'Stone of Life' with the 'Truths of Life,' 'Values' and the 'Life Force'

The Stone of Life is an individual's ultimate reference point. It is where the 'Truths', 'Values' and 'Life Force' are engraved. Both the 'Chimp' and the 'Human' gauge everything by the 'Stone'.

The **'Truths of 'Life'** are how the individual believes the world works and they can be proved as true' by examples and experience. The individual could either have worked them out for him/herself or accepted them from another source, i.e. parents, education or personal experience. These 'Truths' may be the same as some Autopilots or 'Gremlins', but

they are the ones that have been chosen by the individual to live by because they are a set of beliefs that the individual believes to be true

‘Values’

Within the ‘Computer’ there are unwritten values that individuals believe to be just as important to them. They can often settle down both the ‘Chimp’ and the ‘Human’ in times of distress. Values therefore are ‘judgement calls’ made by individuals to reflect the moral and ethical principles they intend to uphold. The difference between ‘Truths’ and ‘Values’ is that ‘Truths’ are evidence based and ‘Values’ are personal judgement calls.

The ‘Life Force’

The **‘Life Force’** is what the individual believes life is all about and the manner in which life should be lived.

The ‘Mindset’

The remaining aspect of the Computer’ acting as a reference is the ‘Mindset’ The manner in which individuals approach their lives is influenced to a large extent by the way in which they see themselves, the way they see others and the way they see the world in which they live.

i.e Self \ Others./

\ /

\ Mindset/perception /

\ /

\ The World /

It would be worthwhile for the individual to spend some time working out the type of ‘Mindset’ they possess, because it will affect both the ‘Chimp’ and the ’Human’ and also what goes on within the ‘Computer’ by distorting the individual’s perception of what is happening in everyday events. Hence, the ‘Mindset’ held by the individual is based on his/her perception of how things are and will therefore influence the individual’s approach to life.

I have already annotated some of the External and Internal factors that can put extra pressure on bowlers. These are Team Pressure; Weather Conditions; Opposition; Spectators; Competition; Anxiety; Self Confidence; Motivation; Fitness; Personality; Presence of ‘Significant Others’ Any one, or a combination of these factors can result in a significant phenomenon termed Anxiety Arousal.

In all sports there is an optimum level of arousal beyond which the quality of performance will always suffer.

The bowler must discover the amount of Anxiety Arousal he or she can cope with and carefully avoid going beyond this threshold and entering into a level of detrimental Anxiety Arousal. The optimum Anxiety Arousal level will vary between both sports and performers. Some sports such as wrestling and weight lifting require ‘explosive’ type action with high

arousal. Other sports such as shooting, archery and bowls for example seen to tolerate only a low level of Anxiety Arousal before quality of performance begins to suffer significantly.

If the individual athlete continues to demonstrate that he or she is unable to perform to their highest level, they may try to justify and account for this continual perceived failure by citing some of these External and Internal factors listed above including blaming others for their apparent failure.

Unfortunately, if this mind set is not dramatically altered, the effects could be alarming and somewhat frightening. Instead of going to out to compete and expecting to win, they will expect to lose. They feel that there is nothing that they can do to alter this situation and they have lost control of the environment in which they are competing. Their results, they believe, in this as well as any future competitions will always end in defeat. What has happened here is that they have entered into a state of 'Learned Helplessness' i.e. believing that there is nothing that they can do to control and alter their results

The duty and role of the coach in this situation is to help the player achieve success and try to ensure that the player sees success as something within his or her control and approach new challenges with the expectation of success. If or when in the future failure does occur, it should be seen as 'unusual' and therefore possible to change.

My research during the preparation for writing this paper has led me to now believe that the work of Prof. Peters has much benefit and reward to offer not only 'athletes'(the word used in the widest sense of the word') but to anyone from any aspect of life. This Paper has only concerned itself with his work on The Inner Mind and Understanding Yourself.'

However, his book 'The Chimp Paradox, The Mind Management' Peters explains how his model of 'The Chimp' is easily applicable to his other areas of study i.e.

1 Understanding Others;
2 Communicating Effectively;
3 Living in your World;
4 Maintaining Health;
5 Being Successful;
6 Being Happy;

Like his writing in the area of 'The Inner Mind', all of these areas are also written in a style which possess the multifarious merits of clarity and understanding. This, together with a written style which is easily able to evoke empathy of subject matter with his readers, renders his thoughts and opinions well deserving of serious contemplation and respect.

Therefore let us again consider the examples of external and internal pressures already cited to ascertain if or how they match the model of the 'Chimp Paradox'.

If a bowler is attempting to perform at his or her maximum potential, embracing the thinking pattern and characteristics explained by the model of 'The Human' as described by Peters, the mind set should be one of absolute concentration and clarity of purpose based on fact and logic. Nothing should interfere with this process.

However, if this process is interrupted by one or a combined configuration of the external or internal factors, then the 'Human' method of thinking can rapidly be superseded by thinking dominated by the 'Chimp' genre of thinking, i.e. based on feelings and emotions. The

‘Chimp’ can quickly change from being the bowler’s best friend to his or her worst enemy. Performance plummets, and the game is lost. The bowler seems unable to understand or explain what has happened to cause such a marked deterioration of the quality of his or her form during the game. If this state of affairs becomes a regular occurrence, it could, in extreme cases, lead to a dramatic and permanent loss of form, confidence, and an expectation to lose every time he or she plays rather than win. This in turn will lead to a state of ‘learned helplessness’ and probable disillusionment with the game.

If the bowler had been able to include with his or her coach, as an integral part of their agreed coaching objectives, the ‘Chimp’ model and accepted its efficaciousness, then this somewhat drastic and alarming state of affairs should never have arisen.

The bowler would have been able to differentiate the different modes of thinking that had taken place during the game. He would realise that the ‘Chimp’ had taken over the emotional and irrational side of his or her thoughts at this critical part of the game.

Therefore, it was the dominant thinking of the ‘Chimp’ that was the major cause for the loss of form. This should then lead to the implementation of the appropriate controlling and managing strategies outlined in this paper.

As a result, the rational and logical thinking strategies that were in use prior to the onset of performance deterioration should again be experienced by the bowler. This should lead to a return and continuation of the quality of the form displayed by the bowler prior to the onset of the anxiety arousal and interference by the ‘Chimp’.

I now intend to both exemplify and offer an apologia for these observations and beliefs by using just one example from my own coaching experience of how successful the use of this method can be. I have introduced and developed the ideas of Prof. Peters to one of the bowlers that I have been coaching on a regular basis over a significant period of time.

The bowler in question has been bowling for some seventeen years and is now representing his County in both the Indoor and Outdoor codes. He has often qualified and competed in National Championship finals in both codes.

A major area of concern that we have been working on together was his propensity on many occasions to experience a sudden, unexplained level of unsustainable anxiety arousal. This always led to a dramatic loss of form and judgement. This often resulted in questionable shot selection and tactics leading to the subsequent loss of the Singles game that he should have won. In Pairs, Triples and Fours competitions, similar patterns and consequent results were often observed.

The work that we have concerned ourselves with in attempt to alleviate this conundrum has been to follow the philosophies and doctrines of the ‘Chimp’ Paradox.

Every coaching session begins with a detailed analysis of performances and results since our last coaching session. If things have gone wrong, analysis of the ‘how’ and ‘why’ is used which invariably leads to the conclusion on his part that that it was a result of a dominant ‘Chimp’ mode of thinking.

He is now much more adept at recognising when this is happening whilst he is playing and consequently adopts and implements the appropriate ‘Chimp Management Strategies’

during the game. Time is also spent in the re-evaluation and, where appropriate, resetting of existing and realistic goals and targets.

Because this a joint venture belonging to both of us, he has ‘bought in’ to them all. He recognises that they are not just a set of goals that the coach thinks to be important, but he has had a significant input in the selection process. Consequently, because of this continuing process, he is now able to keep his anxiety arousal levels to manageable, acceptable and advantageous levels with his understanding of which part of his mind is in control of the thinking process.

As a result of this new understanding and acceptance of the thinking behind the ’Chimp’ Paradox, his commendably high rate of motivation, he has become a more formidable and feared opponent in the world of Club, County and National competitions.

Because every coaching session is of two hours duration, there is always time available to work upon existing skills to ascertain that they are sharp and efficient. Existing targets are used in this area of work with adjustments made where necessary.

Time is always spent on the practice of the ‘less used’ shots in a game. For example, bowling to a bowl in the ditch, a shot bowl off centre, a ‘blind’ jack, a controlled weight shot etc. Use is made of the ‘Phantom Head’ thus conditioning the Head to a set up that would be beneficial to the particular coaching point being worked upon. This affords the opportunity to discuss and evaluate the criteria being used for the selection of the next shot before it is bowled. It also gives the opportunity to discuss whether the proposed next shot is ‘Chimp’ orientated or ‘Human’. The choice of the shots to be worked upon is always the bowler’s choice.

Conclusion:

Whatever philosophies and beliefs a coach may hold about the validity, importance, credibility or use of psychology to improve mental state, it cannot be denied that it is an important factor in the preparation of any bowler if their full potential is to be achieved. A coach may question the usefulness, benefits, extra crucial knowledge and advantages that even a rudimentary knowledge of psychology can afford to his or her bowler. However, the coach should recognise the need to equip the bowler with appropriate strategies to recognise, understand and deal effectively with high and unmanageable levels of performance related anxiety arousal. This could be achieved by:

1 Making demands on the bowler that are perceived by the bowler to be less threatening.

2: By eliminating uncertainty in the mind of the bowler as much as is possible.

3: By reducing the importance of the event or having the bowler focussing on performance-related goals.

4: Building and maintaining self-confidence by encouraging players to develop a sense of control. This could be achieved by helping players to learn and apply physical and cognitive anxiety techniques, thus ensuring that they feel they are both physically and mentally prepared.

5: By helping players to change their perceptions, such as putting failures in a positive light. These can then be used as building blocks for future development.

6: By re-casting their self-talk to stop negative thoughts and start positive ones.

7: By being aware of personal and situational factors, asking what a particular situation means for that bowler at that time.

8: By discovering what is his or her optimal arousal level and coach accordingly.

These suggestions in conjunction with the other areas of study annotated in this Paper will play a significant and permanent part in the development and maintenance of mental equilibrium.

Bernie Millard June 2020.

Reference:

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