STROKEARCS

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MANAGING ATHLETES

FAIR TREATMENT

Just as the Centre for Sport and Law is in a state of transition [see "Speaking Personally, page 12] so is this column. In the last five issues, we have focused on issues relating to negligence and liability of coaches. In this issue, we make a switch to the other side of risk management.

As described in our first column [*Coaches Report* Volume 1, Number 3], organizers of sport programs (including coaches) have two obligations: one, to ensure a safe environment and two, to ensure fair treatment. Failure to satisfy the first obligation can have legal consequences, as those who are physically harmed seek compensation for injuries. Failure to satisfy the second obligation can also have legal consequences, as those affected by decisions pursue legal action to have decisions overturned or rescinded.

This column looks at the second obligation. Very often, coaches are involved in making decisions that affect athletes, and an understanding of the legal meaning of "fair treatment" is an essential part of the coach's personal risk management skills.

Procedural fairness (also known as *natural justice* or *due process*) is a legal term with legal meaning. What this term means for coaches and sport organizations can be traced to the 1952 "landmark" case, *Lee* v. *Showmen's Guild of Great Britain*. The case did not involve sport, but it nonetheless has great significance for sport organizations, coaches and athletes.

Lee was a man who sold pots and pans in a public market. The Showmen's Guild was a merchants' organization of which Lee was a member. Lee had a dispute with a fellow merchant in the market and the Guild punished him by suspending his membership. Lee fought his suspension in court and won, and the judge's decision established two critical principles for sport: one, the jurisdiction of a domestic tribunal is founded on a contract, and two, a domestic tribunal is subject to the rules of natural justice.

In plain language, these principles have the following meaning. First, a domestic tribunal (that is, a sport organization) derives its authority form the contractual relationship it has with its members. The terms of this contract are set out in the bylaws and governing documents of the organization. The organization can do no more, and no less, than what this contract specifies. And it can only change the contract by following special procedures which are laid out in advance. Secondly, the decision-maker has a duty to be fair. This duty is defined by certain rules of fairness, which stipulate that the decision-maker must have authority to act, must act without bias, and must give the person affected the opportunity to be heard.

There are numerous examples of sport situations where these simple rules were not followed, often with grave consequences for the organization which found itself on the losing end of an expensive lawsuit:

- Many coaches have disciplined athletes by suspending or revoking membership, even though the organization had no power to discipline in such a manner because it wasn't written into the contract.
- Many organizations instruct coaches to select athletes for teams without the benefit of any criteria or guidelines, with the result that the coaches is making arbitrary, subjective decisions which cannot be supported when challenged.
- Often, decisions are made by those who have a vested interest in the outcome, because of a personal relationship or other association. Also, it's not uncommon to see appeals of decisions sent back to original decision-makers rather than to an independent and unbiased decision-making body.

For the coach who is expected to make decisions about athlete eligibility, selection, and disciplines, here are a few pointers:

- Insist that selection criteria are approved in advance and are as objective and concise as possible. If criteria are subjective, develop your own guidelines to evaluation athletes.
- If your organization doesn't have a policy on discipline, encourage it to adopt one. Ensure that athletes and coaches have input into the policy.
- Recommend that all selection decisions be made by a panel, not just by one person such as yourself.

- Make a habit of putting all your decisions in writing, with reasons, even when aren't required to supply a written decision. The act of writing reasons always results in a better decision.
- Look at creative ways to discipline for minor infractions, including verbal and written apologies or reprimands, assigning extra duties, or removing perks and privileges. Reserve the most serious sanction for the most serious offence.
- If called upon to make a decision in a situation where you feel you cannot be completely impartial, excuse yourself and ask that an unbiased decision-maker be appointed.
- Encourage your organization to adopt a clear, fair policy on appeals.

If all these risk management measures fail and an appeal procedure does not resolve the situation, the coach can use his or her position of influence to persuade the parties to consider arbitration as an alternative to going to court. The Alternate Dispute Resolution (ADR) Program for Amateur Sport is now underway. If the parties agree to refer their dispute to ADR, the Centre will set them up with a panel of skilled, independent arbitrators who will resolve the issue in less time, at less cost and with less overall harm than is possible in court.

TRAINING PROGRAMS

HOW TO USE THE 6 INTENSITIES IN YOUR OWN PROGRAMS

This is aimed at club level athletes that are willing to train up to 10-12 sessions per week. National Team programs will differ in having more sessions at UT2 and possibly more strength or supplementary work e.g. specific recovery, or sessions aimed at trunk strengthening or core stability.

UT2

Oxygen Utilisation 2

Also know as:
Lower steady state
Aerobic compensation
Intensity level VI
Category 6

Objective: Training and consolidation of technique, training of willpower, basic endurance, improved fat metabolism
Intensity: Lactate: under 2mmol/l
Racing: 65-70% of 2k pace
HR: 135-155bpm
Maximum period at this intensity: 30min - several hours
Duration of each stimulus: 30min - several hours
Frequency/Breaks: Not required except possibly for fluids
Energy supply: Metabolism of fats via oxidation
Subjective feeling: Very pleasant, conversation quite possible, breathing and heart rate only slightly elevated
Applications: Fitness and basic training as well as recovery and compensation
Example: Distances of any length, well suited to technique exercises

UT1

Oxygen Utilisation 1

Also known as:
Upper steady state
Aerobic threshold
Intensity level V
Category 5

Objective: Development of aerobic endurance, training of technique

Intensity: Lactate: 1.5-3mmol/l
Racing: 70-80% of 2k pace
HR: 155-170bpm
Max period at this intensity: 30-100min/training unit
Duration of each stimulus: 30-100min
Frequency/Breaks: None

Energy Supply: Metabolism of fats or carbohydrates (depending on length of activity)
Subjective feeling: Accelerated breathing, speech still possible, greater concentration, environment still perceived
Application: Basic and fitness training, high performance training and competition as well as recovery
Example: Steady state @ 20-23

AT

Anaerobic Threshold

Also known as

Lactate Threshold

Onset Of Blood Lactic Acid
Intensity level IV
Category 4

Objective: Training willpower, strength endurance, aerobic capacity, intensive endurance training, improving oxygen use
Intensity: Lactate: 3-6mmol/l (anaerobic threshold)
Racing: 80-85% of 2k pace
HR: 170-185
Max period at this intensity: 10-45min/ training unit
Duration of each stimulus: 1-45min
Frequency/Breaks: 0-10min
Energy supply: Oxidation - carbohydrate metabolism plus use of muscle glycogen
Subjective feeling: High degree of load, breathing starts to become difficult, higher degree of willpower and concentration necessary
Applications: Used in basic endurance training and high performance training.
Examples: 2 x 20min @ 22-28
4-6 x 2000m/8' @ 22- 28
1-2 x 30' @ 22-28

TR

Oxygen Transportation

Also known as

Maximal VO2

Intensity level III

Category 3

Objective: Special endurance and high degree of specific strength endurance, improving maximal oxygen uptake
Intensity: Lactate: 5-8mmol/l
Racing: 85-95% of 2k pace
HR: approaching maximum
Max period at this intensity: 20-40min /training unit
Duration of each stimulus: 3-10min
Frequency/Breaks: 3-10min
Energy Supply: Glycolysis + oxidation - carbohydrates
Subjective feeling: Great effort of will, lack of attention to surroundings, high degree of concentration necessary, accelerated breathing
Applications: Basic fitness and high performance training and competitive training, has little use for physical fitness in young rowers

Examples: 6-8 x 3min @ 30-32,
4-5 x (3'-2'-1'-1') @ 26-28-30-32
4-5 x (3'-2'-1) @ 30-32-34

AN

Anaerobic Training

Also known as

Lactate Tolerance

Automatisation

Intensity level II
Category 2

Objective: Feel for racing speed, tactical skills, speed endurance, economy of technique at high levels of exertion, lactate tolerance.
Intensity: Lactate: 8-16 mmol/l
Racing: 98-100% of 2k pace
HR: >180bpm
Max period at this intensity: 5-12 min/training unit
Duration of each stimulus: 1-6min, races 5.5 – 8.5min
Frequency/Breaks: 2-15min
Energy Supply: Glycolysis + oxidation – carbohydrates
Subjective feeling: Max speed over length of course, high degree of motivation necessary, great effort of will.
Application: Used for competition and high performance training
Example: 3 x 1000m
6 x 2min
4 x 4min @ race pace

AL

Alactic Training

Also known as

Phosphate system training

Speed work
Intensity level I
Category 1

Objective: Rowing technique at high rates
Intensity: Lactate: over 12 mmol/
Racing: 103-100% of 2k pace
HR: > 180bpm
Max period at this intensity: 4-5min/training unit
Duration of each stimulus: a few sec's - 2 min
Frequency/Breaks: 2-15min
Energy Supply: Up to ±15 sec: creatine phosphate (no lactate)
From 20 sec upwards:glycolysis (strong lactic)
Subjective feeling: Highly motivated, maximum will necessary, extreme concentration, difficulty in breathing, high concentrations of lactic acid
Applications: Has very little effect on fitness levels and should only be used to automate the rowing stroke at high rate
Example: 20/ ½ slides, starting exercises up to 15 strokes

Application of Training Intensities

Training Objective	AL	AN	TR	AT	UT1	UT2
Aerobic Fitness	\	\	\	+	+++	+++
Basic Training & Technique	0	++	++	++	+++	++
High Performance	0	+++	++	+++	+++	+
Recovery & Compensation	\	\	\	\	+	+++

Use

\ = POINTLESS, AVOID
O = TO BE USED RARELY AND WITH CARE
+ = NECESSARY BUT TO BE USED IN MEASURED AMOUNTS
++ = IMPORTANT FOR FREQUENT USE
+++ = ESSENTIAL, DETERMINES CATEGORY OF PERFORMANCE

Guidelines for creating your own sessions

Intensity Symbol	Duration of Reps	Number of Reps	Rest Interval	Ratio Rest/Work Interval	Heart Rate
AL	2-10s	4-6	>5min	1:10 - 1:15	Near max or max
AN	30s-5min	4-6	>5min	1:10 - 1:15	Near max or max
TR	3-7min	4-8	5-10min	2:1	90-95%
AT	8-45min	6-2	5-30min	1:1 - 1:0.5	85-90%
UT1	10min-2h	6-1	1-2min	1:5	75-85%
UT2	30min-2h	3-1	0-2min	1:50	65-75%

Using the 6 Intensities in a training program

When designing a program the different intensities should be used in the following sequence. This will correctly tax the various energy systems and promote the most efficient use of the body's energy reserves.

- **Learn and perfect technique with medium intensity (UT1, UT2)**
- **Perfect technique at submaximum and maximum intensity (AT, TR)**
- **Develop speed of short duration (AL)**
- **Develop anaerobic endurance (AN)**
- **Develop aerobic endurance with maximum intensity (AT)**
- **Develop aerobic endurance with moderate intensity (UT1, UT2)**

Guidelines for creating your own training phases

Training Period/ Intensity	General Preparation	Specific Preparation	Pre-Competition	Main Competition	Transition
UT2	3-4	2	2	1-2	2-3
UT1	2	2	1-2	1	1-2
AT	2	3-4	2-3	1	0
TR	0	1-2	2	1-2	0
AN	0	0	1	1	0
AL	0	0	0	1	0
GYM	2-3	2	2	2	2
Sessions	9-11	10-12	10-12	8-10	5-7

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PHYSIOLOGY

THE CARDIOVASCULAR SYSTEM AND EXERCISE

The cardiovascular system serves five important functions (1) during exercise:

1) Delivers oxygen to working muscles
2) Oxygenates blood by returning it to the lungs
3) Transports heat (a by-product of activity) from the core to the skin
4) Delivers nutrients and fuel to active tissues
5) Transports hormones

Exercise places an increased demand on the cardiovascular system. Oxygen demand by the muscles increases sharply. Metabolic processes speed up and more waste is created. More nutrients are used and body temperature rises. To perform as efficiently as possible the cardiovascular system must regulate these changes and meet the body's increasing demands (2).

Below we will examine the acute or immediate response to exercise and also the long-term adaptations that take place in the cardiovascular system with repeated exercise. The most important aspects of the cardiovascular system to examine include:

- Heart rate
- Stroke volume
- Cardiac output
- Blood flow
- Blood pressure
- Blood

Immediate Response of the Cardiovascular System to Exercise

Heart Rate

Resting heart rate averages 60 to 80 beats/min in healthy adults. In sedentary, middle aged individuals it may be as high as 100 beats/min. In elite endurance athletes heart rates as low as 28 to 40 beats/min have been recorded (2).

Before exercise even begins heart rate increases in anticipation. This is known as the **anticipatory response.** It is mediated through the releases of a neurotransmitters called **epinephrine** and **norepinephrine** also known as adrenaline and noradrenaline (1).

After the initial anticipatory response, heart rate increases in direct proportion to exercise intensity until a maximum heart rate is reached. Maximum heart rate is **estimated** with the formula **220-age**. But this is only an estimation, and not particularly accurate. The only direct method for determining maximum heart rate is to exercise at increasing intensities until a plateau in heart rate is found despite the increasing work rate.

Although heart rate increases rapidly with the onset of activity, providing exercise intensity remains constant, heart rate will level off. This is known as **steady-state heart rate** where the demands of the active tissues can be adequately met by the cardiovascular system. However, there is an exception to this…

During prolonged steady-state exercise, particularly in a hot climate, a steady-state heart rate will gradually increase. This phenomenon is known as **cardiac drift** and is thought to occur due to increasing body temperature (3).

Stroke Volume

Stroke volume is the amount of blood ejected per beat from left ventricle and measured in ml/beat.

Stroke volume increases proportionally with exercise intensity. In untrained individuals stroke volume at rest it averages 50-70ml/beat increasing up to 110-130ml/beat beat during intense, physical activity. In elite athletes resting stroke volume averages 90-110ml/beat increasing to as much as 150-220ml/beat (2).

Stroke volume may increase only up to 40-60% of maximal capacity after which it plateaus. Beyond this relative exercise intensity, stroke volume remains unchanged right up until the point of exhaustion (4,5). But this is not conclusive and other studies suggest stroke volume continues to rise until the pint of exhaustion (6,7).

Interestingly, swimmers see a smaller increase in stroke volume compared to runners or cyclists for example. It is believed that the supine position prevents blood from pooling in the lower extremities enhancing venous return (2).

Why does stroke volume increase with the onset of exercise? One explanation is that the left ventricle fills more completely, stretching it further, with the elastic recoil producing a more forceful contraction. This is known as the **Frank-Starling mechanism**. Other contributing factors include increased contractility of the ventricles and reduced peripheral resistance due to greater vasodilation of the blood vessels (1).

Cardiac Output

Cardiac output is the amount of blood pumped by the heart in 1 minute measured in L/min. It is a product of stroke volume and heart rate (SV x HR). If either heart rate or stroke volume increase, or both, cardiac output increases also.

Cardiac output increases proportionally with exercise intensity - which is predictable from understanding the response of heart rate and stroke volume to activity. At rest the cardiac output is about 5L/min. During intense exercise this can increase to 20-40L/min (1).

Blood Flow

The vascular system can redistribute blood to those tissues with the greatest immediate demand and away from areas that have less demand for oxygen.

At rest 15-20% of circulating blood supplies skeletal muscle. During vigorous exercise this increases to 80-85% of cardiac output. Blood is shunted away from major organs such as the kidneys, liver, stomach and intestines. It is then redirected to the skin to promote heat loss (2).

Athletes are often advised not to eat several hours before training or competition. This is advice worth adhering to, as food in the stomach will lead to competition for blood flow between the digestive system and muscles. It has been shown that gastrointestinal blood flow during exercise shortly after a meal is greater compared to exercising on an empty stomach (8).

Blood Pressure

At rest, a typical **systolic** blood pressure in a healthy individual ranges from 110-140mmHg and 60-90mmHg for **diastolic** blood pressure.

During exercise systolic pressure, the pressure during contraction of the heart (known as systole) can increase to over 200mmHg and levels as high as 250mmHg have been reported in highly trained, healthy athletes (2).

Diastolic pressure on the other hand remains relatively unchanged regardless of exercise intensity. In fact an increase of more than 15 mm Hg as exercise intensity increases can indicate coronary heart disease and is used as marker for cessing an exercise tolerance test.

Both systolic and diastolic blood pressure can rise to high, albeit brief, levels during resistance exercise. Values of 480/350mmHg (9) have been reported to coincide with a **Valsalva manoeuvre** - i.e. trying to exhale against a closed mouth, nose and glottis.

Blood

During resting conditions the oxygen content of blood varies from about 20ml of oxygen per 100ml of **arterial** blood to 14ml of oxygen per 100ml of **venous** blood (2). The difference in oxygen content of arterial and venous blood is known as **a-vO2 difference**.

As exercise intensity increase the a-vO2 difference increase also and at maximal exertion the difference between arterial and venous blood oxygen concentration can be three times that at a resting level.

Blood plasma volume decreases with the onset of exercise. The increase in blood pressure and changes in intramuscular osmotic pressures force water from the vascular compartment to the interstitial space. During prolonged exercise, plasma volume can decrease by 10-20% and by 15-20% in 1-minute bouts of exhaustive exercise (10). Resistance training with 40% and 70% one repetition maximum can cause a 7.7% and 13.9% reduction in blood plasma respectively (11).

The Fick Equation

In the 1870's Cardiovascular physiologist A. Fick developed a formula that allows the rate of oxygen consumption (VO_2) to be determined if the cardiac output (Q) and arterial-venous oxygen difference (a-v O_2 diff) are known:

$$VO_2 = Q \times \text{a-v } O_2 \text{ diff}$$

A reduction in plasma increase the concentration of hemoglobin or **hematocrit**. Although no extra red blood cells have been produced, the greater concentration of hemoglobin per unit of blood significantly increases the blood's oxygen carrying capacity. This is one of the main adaptations during immediate acclimatization to altitude.

Blood pH can change from a slightly alkaline 7.4 at rest to as low as 6.5 during all-out sprinting activity. This is primarily due to an increased reliance on anaerobic energy systems and the accumulation oh hydrogen ions (1).

Adaptations in the Cardiovascular System

Following training the cardiovascular system and its components go through various adaptations. Here are the most important:

Heart Size

The heart's mass and volume increase and cardiac muscle undergoes hypertrophy.

It is the left ventricle that adapts to the greatest extent. As well as the chamber size increasing as a result of endurance training (12), more recent studies show that the myocardial wall thickness also increases (13).

Heart Rate

Resting heart rate can decrease significantly following training in a previously sedentary individual. During a 10-week exercise program, an individual with an initial resting heart rate of 80beats/min can reasonably expect to see a reduction of about 10beats/min in their resting heart rate (2). As mentioned earlier, highly conditioned athletes such as Lance Armstrong can have resting heart rates in the low 30's.

During submaximal exercise, heart rate is lower at any given intensity compared to pre-training. This difference is more marked at higher relative exercise intensities. For example, at low work rates there may only be a marginal difference in heart rate pre and post training. As intensity reaches maximal levels, the difference can be as much as 30beats/min following training (2).

Maximum heart rate tends to remain unchanged by training and seems to be genetically limited. However, there are some reports that maximum heart rate is reduced in elite athletes compared to untrained individuals of the same age.

Following an exercise bout, heart rate remains elevated before slowly recovering to a resting level. After a period of training, the time it takes for heart rate to recover to its resting value is shortened (2). This can be a useful tool for tracking the effects of a training program. However, it is not so useful to compare to other people as various individual factors other than cardiorespiratory fitness play a role in how quickly heart rate returns to a resting level.

Stroke Volume

Stroke volume increases at rest, during submaximal exercise and maximal exercise following training. Stroke volume at rest averages 50-70 ml/beat in untrained individuals, 70-90ml/beat in trained individuals and 90-110ml/beat in world-class endurance athletes (1).

This all-round increase in stroke volume in attributable to greater end-diastolic filling. This greater filling of the left ventricle is due to a) an increase in blood plasma and so blood volume (see below) and b) reduced heart rate which increases the diastolic filling time (2).

According to the Frank-Starling mechanism, this increased filling on the left ventricle increases its elastic recoil thus producing a more forceful contraction. So not only is the heart filled with more blood to eject, it expels a greater percentage of the end-diastolic volume (referred to as the ejection fraction) compared to before training.

Cardiac Output

If heart rate decreases at rest and during submaximal exercise and stroke volume increases, what is the net effect on cardiac output?

In actual fact, cardiac output remains relatively unchanged or decreases only slightly following endurance training. During maximal exercise on the other hand, cardiac output increases significantly. This is a result of an increase in maximal stoke volume as maximal heart rate remains unchanged with training. In untrained individuals, maximal cardiac output may be 14-20L/min compared to 25-35L/min in trained subjects. In large, elite athletes, maximal cardiac output can be as high as 40L.min (2).

Blood Flow

Skeletal muscle receives a greater blood supply following training. This is due to:

- Increased number of capillaries
- Greater opening of existing capillaries
- More effective blood redistribution
- Increased blood volume

Blood Pressure

Blood pressure can decrease (both systolic and diastolic pressure) at rest and during submaximal exercise by as much as 10mmHg in people with hypertension. However, at a maximal exercise intensity systolic blood pressure is decreased compared to pre-training (15,16).

It is interesting to note that although resistance exercises can raise systolic and diastolic blood pressure significantly during the activity, it too can lead to a long-term reduction in blood pressure (17).

Blood Volume

Endurance training increase blood volume. While plasma volume accounts for the majority of the increase, a greater production of red blood cells can also a contributory factor. Recall that hematocrit is the concentration of hemoglobin per unit of blood. An increase in red blood cells should increase hematocrit but this is not the case. Because blood plasma increases to a greater extent than red blood cells, hematocrit actually reduces following training (2).

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COACHES

DOING THE BUSINESS WITH JURGEN GROBLER

David Bolchover is the co-author of The 90-Minute Manager, which outlines the lessons that business managers can learn from football managers. His next book, The Living Dead: The Shocking Truth about Office Life, will be published by Wiley-Capstone in October.

STOP a man in the street, ask if he has heard of Sir Steve Redgrave or Sir Matthew Pinsent, and he would probably be surprised that anyone would waste their breath asking. Of course he has heard of them. But mention the name of Jurgen Grobler and you would probably be met by a shrug of the shoulders.

Yet this quiet, unobtrusive coach has been the indispensable influence behind the scenes during the past 14 halcyon years of British rowing. The limelight doesn't interest Grobler. Only his athletes getting gold medals does. "I see my job as a service, helping young athletes, motivating them to the podium," he said. "If you read the newspapers, you will see only the athletes' names. That's right. I have no problems there."

Public recognition does come along sporadically. In 2000, Grobler won the BBC Sports Personality of the Year coaching award and four years later he was given a lifetime achievement award by the UK Coaching Foundation. He was awarded the freedom of his adopted town, Henley, on his return from success at the 1996 Olympics. But after each award, Grobler returned eagerly to the background.

Grobler's business equivalent is not the charismatic, rent-a-quote chief executive so beloved of the media, but rather the unsung middle manager who devotes his life to extracting the last drop of potential from the human resources at his disposal.

At least, that's what a corporate middle manager should be doing. The conclusion from recent research based on Gallup interviews with more than 1m employees across a broad range of industries in different countries leaves no doubt as to the value of good managers: "Talented employees need great managers. The talented employee may join a company because of its charismatic leaders, its generous benefits and its world-class training programmes . . . but how long that employee stays and how productive he is while he is there is determined by his relationship with his immediate supervisor."

Grobler certainly knows this. "To be successful again and again, I think every athlete needs a coach," he said. "You notice when a good athlete wins, the first person he thanks will be his coach. He knows how important the coach has been to him, setting the right programme, preparing everything." And Redgrave, speaking after yet another Olympic gold in Sydney in 2000, knew it too: "Without his (Grobler's) support and help we wouldn't be here.

Too often business ignores the lessons of sport, epitomised by the likes of Grobler. During our conversation at the history-laden Leander Club in Henley he repeatedly referred to an overriding desire to help young people make the most of themselves. The history of sport is shouting at business that teams can only achieve excellence under the guidance of a talented people manager who forfeits the pursuit of his own achievements to dedicate himself to helping others achieve.

Professional sport, the most competitive environment there is, has not only long recognised the sheer power of effective and committed people managers; it also understands that such individuals don't grow on trees. Whereas companies continue to promote people to management

positions just because they happen to be good at what they do, sport has learnt that true managerial skill is much less common than functional expertise, the ability to perform well doing the job or playing the game.

So, in Grobler, who never even attempted to forge a career as a rower for himself, we have the embodiment of some of the key messages sport can convey to business. He is a type of individual you will rarely come across in the business world — a man asked to do nothing but get the best out of others.

From as far back as he can remember, as a youngster growing up in the rubble of post-war Magdeburg in communist East Germany, Grobler was both fascinated by the sport of rowing and resigned to the fact that he would never make it as an athlete. “I just didn’t have the right body shape to be a successful international athlete,” he said. “But I was always interested in the sport — the teamwork, trying to find out how far you can push your body. I knew I couldn’t do it myself but I wanted to help young people achieve their goals.”

So he enrolled on a five-year degree in sports science in Leipzig, then the leading university in that field in the country. On graduating, he returned to his local rowing club in Magdeburg and first attracted attention in his midtwenties when he won the club its first medal, coaching Wolfgang Guldenpfennig to the bronze in the single sculls at the Munich Olympics of 1972. He then went on to coach the coxless pair Bernd and Jörg Landvoigt to successive golds in 1976 and 1980.

His record now is remarkable. He has a haul of 15 Olympic gold medals, eight with crews he has coached personally and seven as head coach or technical director of the rowing team, first with East Germany and then, since 1991, with Great Britain. Redgrave won three of his five Olympic golds under Grobler’s tutelage and Pinsent all four.

Add on countless World Championship golds, and you start to wonder what it is about this seemingly unremarkable man that makes him such a supreme manager. What differentiates the average managers from the Alex Ferguson’s and the Jurgen Grobler's, men who achieve success consistently over decades, with different organisations and despite changing personnel?

According to Grobler, it is “how much you love the job, how motivated you are as a coach”. This might, at first glance, seem trite, but many businesses still ignore the essential truth contained in it. To be really good at anything, you surely have first to love doing it. But any ambitious individual who wants to ascend the corporate heights normally has to push early in his career to become a middle manager of some sort, whether he has any desire to manage people or not.
The result can be uninterested, weak management and a consequently sluggish workforce, as workplace surveys bear out with disturbing regularity.

A paltry 2% of UK Human Resources professionals interviewed by Personnel Today in 2003 stated that the people management skills of line managers in their companies were “excellent”, while 74% blamed ineffective line managers for low morale.

Grobler’s love of coaching has two primary effects. First, it enables him to think nothing of working flat out for all hours to go that extra mile, examining every last detail to prepare his athletes for victory. His own work ethic, enthusiasm and total commitment, he believes, also produce farreaching knock-on effects. They are in themselves a galvanising force, rubbing off on the athletes and making them strive harder to achieve their goals.

“As in any other business where you want to be successful, this is not a 40- hour-a-week job. You have to devote all the time necessary to make the young athlete achieve. You have as a coach always to be in front, in the driving seat. You have to say to the athletes, ‘Look guys, I can’t do the training myself, but I will be there an hour before you so that everything is set up. I will help you.’ I always think that’s a big motivation for the athlete. They know there is someone there who will really help them and believe in them right through the tough times.”

The second consequence of Grobler’s passion is that his thirst for more work destroys any potential for complacency, prevents him from resting on his laurels and pushes him forward to strive for future goals. When I asked him if he had any regrets, there was a telling silence. Eventually he shook his head and said: “I’m always thinking about the next one.

Always looking forward." And right now he needs to do plenty of looking forward, to 2008 certainly and possibly to 2012.

Redgrave retired in 2000. Out of the four who won the coxless four Olympic gold in Athens last year, Pinsent and Ed Coode have also now retired, and James Cracknell is taking a year out. There is clearly much rebuilding to be done before the Beijing Olympics in 2008 if the British rowing team is to continue its remarkable run of success.

Grobler said the monumental task of sustaining the level of achievement in the face of the departure of these rowing legends has provided him with a renewed sense of mission, and, if he needed any, yet more enthusiasm. "This is a big challenge. I am maybe even more motivated than I was at the Athens Games," he said.

Grobler's doubters should remember that the German is a proven master at bringing change and improvement. First he revitalised the ramshackle rowing club in Magdeburg, putting it on the Olympic map with a hotel and state-of-the-art fitness centre.

When he arrived in Henley in 1991, invited to replicate his East German success by the British rowing establishment, "it was just like Magdeburg 20 years before. A boathouse and a river, and nothing else". With the help of lottery funding and driven by Grobler's vision, the Leander Club now boasts the best training facilities and a refurbished boathouse, decked with
trophies and myriad memories of triumph.

Dilapidated facilities were one fundamental difficulty he faced on his arrival in Britain. The other was a dearth of the professionalism to which he was so accustomed in East Germany, where sport was "the Mercedes-Benz", the prized asset of a dysfunctional system. "In my first Olympics here, it was all about 'taking part'. I didn't understand 'taking part'. This was something totally new to me. I had to go there and win," said Grobler.

He might have learnt in detail the methodology of sports science and fitness training in East Germany, but coaching for him is much more than reading from a manual. It requires combining technical knowledge with a profound understanding of the mental and physical attributes of the individual he is dealing with.

"A coach might have a training programme to follow, but he will have a feel as to whether the athletes have to back off or push on. You need to find that line, that ceiling. Not to go too far. Push them two steps forward and then back off a little bit. That's feeling."

Each athlete is an individual and no coach can afford to ignore that, he said. "Matthew (Pinsent) and James (Cracknell) and Steve (Redgrave) are not copies. They are totally different. In one way, you have to bring them together as a crew. The result has to be the same, going as fast as possible from A to B with each rower. But to motivate them, to bring them to the same level of performance, you will have to go a different route with each athlete."

Because Grobler treats each individual in a different way, there is always the chance that some may consider that others are receiving preferential treatment. This is where mutual trust comes in. The coach must know, on one side, that the athlete will not shirk any effort to achieve. On the flip side, all athletes must learn that the coach only has the good of the team at heart — there are no favourites. "The coach has to establish a partnership with the athlete. Like all good partnerships, it has to be based on trust. Nothing should be kept under the table."

Grobler constantly conducts one-to-one discussions with athletes so he can gauge the mental state of his charges. "A successful athlete-coach partnership must be coach-driven but the coach cannot function without good feedback from the athletes. An important part of the coach's job is to listen."

Few people like confrontation and the amiable Grobler is no exception. But he forces himself to engage in honest criticism: "It's never nice. But you must always start from a base of trust, partnership and openness. We shouldn't be shy of bringing things out on the table. We could just make every day nice, with no problems. But you will never improve that way."

Grobler normally reserves his sharpest criticism for one individual — himself. If an athlete is underperforming despite his or her best efforts, he takes it personally, and he challenges himself to come up with a more effective strategy for that individual. “I feel responsible and always say that we are in the same boat,” he said. “If the athletes win, it’s their victory. If they lose, then it’s the coach’s fault. I feel a lot more down than the athletes sometimes. I am always first say to myself, ‘Maybe I made a mistake’.”

It is difficult to imagine Grobler losing his temper. But if an athlete threatens the trust that has been painstakingly built up between the two of them, then self-criticism and constructive feedback fly out of the window: “If I see they are cutting corners again and again, then I get very upset . . . I always say the last stroke counts. The last stroke last year made us Olympic champions. They all have to learn that in training.”

That last stroke in Athens won an Olympic gold for the coxless four crew of Pinsent, Cracknell, Coode and Steve Williams by the margin of 45 centimetres — or 0.08 seconds. This victory was particularly sweet for Grobler, because it came in the wake of a highly controversial and widely criticised shift in selection policy in the weeks before the race.

Pinsent and Cracknell were originally down to compete in the coxless pairs. But Grobler decided that the best chance for a British gold would require them to switch to the coxless fours, displacing a devastated Rick Dunn andToby Garnett.

The ruthlessness of the decision inevitably created considerable tension in the squad. Grobler was again prepared to sacrifice a cosy atmosphere in the pursuit of excellence. “I don’t do things just to make trouble or show how powerful I am,” he said. “But nor do I run away from the job.”

The German is happy and settled in Henley, describing himself as “more British than the Brits”. Filled with energy by the prospect of the rebuilding process that lies ahead, he hopes shortly to get the nod to continue in his current role until the London games in 2012. Doesn’t he want to start to wind down, to relax a bit? “I relax in the morning when everyone comes in on time.”

Jurgen Grobler's leadership lessons:

Love your job. Enjoy helping others achieve their goals

To be a good manager, you have to love managing. This passion will ensure your dedication to the job. It will also be infectious, increasing the commitment of others and inspiring them to attain their own goals.

Mutual trust and openness are key — guard them jealously.

No manager can operate effectively without trust. The team must believe that the manager treats them with honesty and integrity and hides nothing. For his part, the manager must know that each team member shares his goals.

Question yourself before you question your team

You are responsible for the underperformance of any member of your team. Always analyse your own performance as a manager before criticising others

Don’t run away from tough decisions

It is easy to sit in your ivory tower and avoid confronting awkward issues. Some decisions might antagonise certain individuals. That doesn't mean you shouldn’t make them. It’s your job. You’re a manager.

No two people are the same — deal with them differently

If you deal with everybody in an identical way, you will not get the best out of your team. It is your responsibility to find out what makes each individual tick and then manage them accordingly.

No criticism means no progress

For your people to improve, they have to know where they are going wrong. Criticising others might not be pleasant, but having a nice, cosy life should not be your goal.

Managing others is not a one-way process. Always listen

Listen to what your team is telling you. If you don’t, you won’t understand them. And if you don’t understand them, you can’t manage them.

Shun all favouritism. Performance is all.

There is no room for cronyism in any team or organisation that strives for excellence. Who is best able to carry out a specific task or fulfil a particular role? That is the only relevant question in selection and recruitment.