

THE OLYMPICS. IT'S THE GREATEST SPORTING SHOW ON EARTH. AND THE WORLD IS WATCHING. WHO WOULDN'T GET A BIT NERVOUS? AMANDA HOOTON TALKS TO THE PEOPLE WHO HELP OUR ELITE ATHLETES TRIUMPH IN THE FRAUGHT FIELD OF MIND OVER MATTER.

"THEY CAN BECAUSE THEY THINK THEY CAN"

UMAN BEINGS SOMETIMES FALTER under pressure. We fail our exams and crash our cars and forget the answer that will clinch victory in the Monday-night quiz. And if, by chance, we are Olympians, we sometimes fail on an even greater stage than that of the local pub. In a few weeks' time in London, hurdlers will fall, archers will miss, sprinters will leap before the gun goes off. Sportsmen and women of every description will fail in every describable way. And they'll do so not because they cannot jump or shoot or run – indeed, most of them will be in the best physical shape of their lives - but because of what's going on in their heads. As Virgil might have put it, writing about a group of sportsmen 2000 years ago: they cannot, because they think they cannot.

OF COURSE, NOT EVERYBODY FAILS. THE OLYMPIC myth itself is founded on the notion of the natural competitor, who glories in the moments of greatest stress and challenge. And there are some people like that. Many years ago, I interviewed Nadia Comaneci, the tiny Romanian gymnast who, in 1976 at Montreal, scored the first perfect 10 in Olympic history. "She was the only athlete I ever met that I could not break," said her infamous coach Béla Károlyi, and in person, she really did seem forged out of pure steel. "I don't like not to be perfect," she told me. I believed her.

triple Olympic champion Jodie Henry (opposite) was so overcome by nerves she almost didn't swim in the 100-metre freestyle final at the 2000 Olympic trials.

who does just cope naturally with high levels of pressure," acknowledges Shannon Rollason, head coach of the Australian Institute of Sport (AIS) swimming program. "But when I started coaching I didn't think I'd be lucky enough to be standing under the tree when that one fell out. So I wanted to try to help the other 999,999."

Enter the sport psychologist. This year, the Australian team will take as many as eight sport psychologists to London, with others maintaining phone and Skype contact from Australia. They will help athletes address issues of nerves, anxiety, distraction, negative thinking and the burden of expectation in the most stressful athletics environment on earth. "The intensity and pressure on the Olympic athlete is many, many times higher than, say, the world championships," says John Bertrand, Olympic sailing medallist and skipper of America's Cup winner Australia II.

"The Olympics are completely different," agrees Robert de Castella, the moustached great of Australian marathon running. "Even though my first one was 30-odd years ago, they've always been huge. Huge and overwhelming."

Seventeen thousand athletes will compete in London, from 205 countries, in some 300 medal events, watched by 20,000 journalists, nine million ticket-holders, and an incredible four billion television viewers. All this means they carry what Ruth Anderson, head of psychology services for the Australian Olympic team and senior sport psychologist at the AIS, calls "a unique complexity of expectations". A complexity that can make the Games themselves seem like a matter of life and death. Which, as the great Liverpool Football Club manager Bill Shankly put it, is quite wrong. To the athletes involved, they're much more important than that.

ance? At base, it's the old story of fleeing the sabre- up for her [100 metres freestyle] final: she had so

"There will be that one-in-a-million person toothed tiger. The flight-fight response is an ancient mind-body interaction, and whether you're a Neanderthal swinging your berry basket or a 100-metre Olympic finalist in London, it involves exactly the same physiological cause and effect. Our brain perceives a threat and triggers the release of various hormones that (among other things) increase our heart rate, elevate our muscle tension and accelerate our breathing.

> As a Neanderthal, these things work in your favour; as they sometimes do as an athlete. Angie Ballard, 30, who will attend the London Paralympics as a wheelchair sprinter, achieved a personal-best time recently after being so nervous on the starting line that she was physically shaking. "But I put in one of the best performances of my life," she says. "So it was obviously the right level of arousal."

> "If it's a gross motor situation, and all you have to do is run [or push] like hell, you might be all right," agrees Jeff Bond, who headed up psychology at the AIS for 22 years and attended nine Olympic Games. "That rush of adrenalin is part of what prompts those amazing performances. But if you're talking about fine motor skill, or complex cognitive work, strategising or whatever, then you become incapable."

> "And there's a mental component, too," adds Gerard Faure-Brac, a NSW Institute of Sport (NSWIS) sport psychologist. "The stress response allows your brain to process information very quickly. So you might see an increase in negative thoughts, or just thinking too many things at once, so the brain gets overloaded. If you think of a rabbit in the headlights, that's exactly what's going on. There's so much going on for this poor rabbit, it's frozen to the spot."

As it is with rabbits, sometimes it is with athletes. At the 2000 Olympics swimming trials, Jodie Henry – who later went on to become a triple WHAT HAPPENS TO THE HUMAN BRAIN UNDER : Olympic champion – was so nervous that, as her stress? And how does that affect athletic perform- coach Shannon Rollason recalls, "she didn't warm much anxiety built up that she literally couldn't do it." She did swim the final (after Rollason spent 45 minutes getting her to the blocks), but came sixth and missed the team. This year, meanwhile, in the lead-up to London, pole vaulting world champion and defending Olympic gold medallist Steve Hooker withdrew temporarily from all competition with what he called "the yips" – a total loss of confidence in his ability to jump.

Gerard Faure-Brac estimates that the stress response is the reason 80 per cent of athletes walk through his door. Despite all our sophisticated training regimens, our state-of-the-art sports science programs and our exhaustive high-tech preparation, the sabre-toothed tiger walks among us still. And however it presents itself, the job of sport psychologists is to slay it.

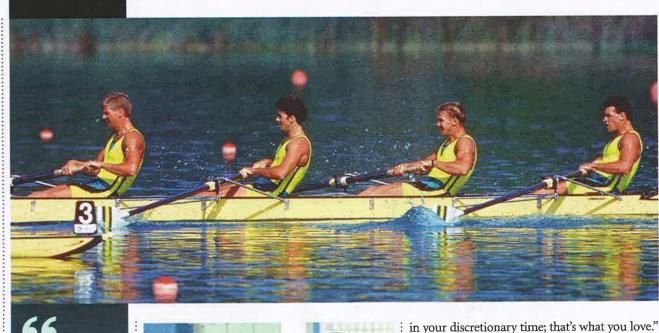
NE OF THE MAJOR WEAPONS - AND PERhaps the oldest - in the sport psychology arsenal is, surprise, surprise, relaxation. Dr Colin Davey, an éminence grise of Australian sport psychology (he was advising Victorian Australian Rules football clubs in the 1960s) recalls seeing tennis player Björn Borg being treated in Sweden in the 1970s. "And what he was doing was relaxation and imagery."

Relaxation, in this context, means addressing the physical changes the stress response causes. This means deliberately slowing your breathing and relaxing your muscles. This seems almost laughably simplistic, but what you're actually doing is performing a cunning psychological trick. You're signalling to your brain that, in fact, you're deeply relaxed and everything's fine: there's no sabre-toothed tiger to be seen.

"If you can control your breathing, your heart rate drops, and your body returns to equilibrium," says sport psychologist Patsy Tremaine, who not only co-ordinates services at the NSWIS, but advises dancers and medical registrars in exactly the same techniques. The aim is to get athletes to the point where they recognise their stress cues and go straight to their relaxation strategy: "I want athletes to be able, on the way up to do a lay-up, to release the tension in their shoulders," says Faure-Brac, who has worked with both NBL and Australian basketball teams. "So it's as automatic as taking the shot."

Slowing the mind is also important. Sport psychologists call this mindfulness or process-focusing, and it works by making you focus only on the present moment – which, as anyone who has bought a self-help meditation book knows, can be hard work. In 2006, Australian golfer Geoff Ogilvy came from behind to win the US Open, one of the greatest contests in golf. "You do have all these wild thoughts," he told me after his win. "You think, 'Oh my God, what's it going to be like on the last green? What am I going to say to the TV cameras?' - all that. But you've got to get rid of that stuff. If you start thinking, 'I'm going to win all that money'; 'I'm going to be on Dave Letterman', you have no chance. So I have all these little strategies: 'I'm here on the seventh hole, playing golf today. I'm wearing white shoes. I've just taken my glove off and put it in my back pocket.' Anything other than 'Oh my God, I'm going to win the US Open.' And it's amazing how it works."

This is exactly what Shannon Rollason did with Jodie Henry. "At the Olympics, there's 20 minutes between when swimmers leave the change rooms and get to the blocks," he says. "Twenty minutes for them to stuff themselves up. And so, with Jod, I gave her a strategy to fill in the time between leaving me and getting on the blocks. First, she had to



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watches as Felicity Galvez takes her mark at the Australian Institute



make conversation with someone in the marshalling area. I said, 'I don't care if they don't talk back, you just talk to them. Then I want you to spot the Australian team and wave to them. Then find Mum and Dad in the crowd and wave to them. Then sit down behind the blocks, and you're not allowed to take your gear off until after you get introduced. Then you're allowed to put your race hat on." Henry followed the process, hit the water, and won three Olympic gold medals in 2004, breaking three world records along the way.

Another variation of this technique is to focus on the physical act of the sport itself. "If you ask athletes seriously what they like about their sport, inevitably they'll come back to some intrinsic 'feel' quality," says Jeff Bond. "A high jumper will talk about floating high in the air; a long jumper will talk about the hang; rowers talk about feeling the bubbles on the outside of the boat. So you try to get athletes to refocus on those details."

This aligns with another performance psychology strategy, known as positive psychology. "Basically, the idea is you'll never grow from developing your weaknesses," says Sandy Gordon, professor of exercise, health and sport psychology at the University of Western Australia. "Initially, of course, that's absolutely counter-intuitive, because we all grow up being told we've got to work at our weaknesses. But the idea is that you get a far better investment on your time focusing on your strengths. If you're great at biology and failing maths, there's no point getting a maths : tutor and frustrating yourself endlessly with

In the 1990s, Bond worked with Australian tennis player Pat Cash. "The two things he loved," Bond recalls, "were setting up a point and the

feeling of hitting the ball perfectly to finish the point. So I said to him before Wimbledon in 1987, "Well, just take it point by point, and focus on those things – forget everything else. If you do it right, you won't even know what the score is. And eventually someone will say to you, 'Okay, it's over.' He was pretty sceptical, but it's interesting. If you watch that final, you can see he wasn't even aware he'd hit the winning point until the crowd erupted. He was so focused on the process. And at the end, there was this moment where he just stood there, realising what had happened."

PART OF THE VALUE OF PROCESS-FOCUSING IS that it helps encourage what both psychologists and athletes acknowledge is the ideal performance state, known in the trade as "flow", or being "in the zone". Most of us have heard of this state even experienced it ourselves, when we've been intensely engaged in an activity we enjoy. It's a feeling of concentration without strain; where thoughts and actions seem perfectly co-ordinated, almost automatic.

It's a hard state to describe - "No athlete I've ever talked to can actually really explain it," admits Rollason - but everyone knows it once they've experienced it. "You feel really in the moment, really focused," says Brendan Cole, who will compete in the 400-metre hurdles and potentially the 4 x 400-metre relay in London. "And afterwards, you almost don't remember it. It's almost like a dream."

"Sometimes I'll be watching AFL," says John Bertrand, "and I'll see someone, and when they get the ball things almost seem to go into slow motion, and they appear to have all the time in the world to play it. When Sir Donald Bradman was at his best, he could apparently study the stitching on the ball as it came towards him before he took his shot. That's the flow state."

As desirable as it is, the flow state appears to be impossible to create at will. It's like an artist waiting for the muse to descend: no one knows quite how or when it happens. But nobody wants to interfere with it. This makes many athletes reluctant to engage with sport psychology: they don't want formal analysis or training interfering with such a mysterious mental blessing. "And sometimes that does happen," acknowledges Bond. "Sometimes analysis does mess up flow, and you have to take three or four steps backwards to go maths. Spend more time on biology. That's what i forwards." But, as Ruth Anderson says, "Actively you're good at; that's what you'll choose to do i addressing your state beforehand is the best way



to encourage that automatic ability when performance happens."

Of course, few things in life, or Olympic performance, are perfect. The brutal reality is that most athletes compete, most of the time, not in some halcyon flow state, but in the midst of nerves and distraction and injury and adverse weather conditions and a million other uncontrollable factors. "At Beijing, I was based in the medical clinic," says Anderson, "and athletes would often come down after they'd won medals. And the one thing that struck me was that there wasn't one athlete who talked about having had an ideal preparation, or even a really great performance. What they talked about was being really nervous, having doubts, all of that. But the key factor with the medallists was that they had been able to manage it really effectively."

PEAKING OF EFFECTIVE MEDALLISTS: IN THE lead-up to the 1996 Atlanta Olympics, no-body gave the Australian men's rowing four – the legendary Oarsome Foursome – a chance. Technically, they didn't even qualify for the team (they were included on the vote of the head coach), and once they arrived they just scraped into lane six in the final. Then, miraculously, against the highly favoured world-champion Italians, the British and the Romanians, they won.

Jeff Bond, who worked with them in Atlanta, believes they did so because they were what he calls "the masters of visualisation". Visualisation is another sport psychology technique. It trains athletes to imagine the perfect performance of a physical act — throwing a discus, hitting a ball, rowing a race. It's an entirely mental exercise, and its power lies in one startling physiological fact: that the brain cannot distinguish between a real activity and an imagined one.

"From the brain's point of view, when you create an image of an act, that fires off the same neurons in the brain as physically performing the act," says Victorian Institute of Sport sport psychologist Paulette Mifsud.

"The signal strength, if you like, is greater when you actually perform the act — when you actually lift your leg as opposed to thinking about lifting it — but the neural pathways are the same. And so visualisation strengthens that neural network so it's more accessible, and becomes the pathway your brain follows naturally."

"The whole thing happens in the part of the brain called the hippocampus," adds Laurie Hayden, a Melbourne sport psychologist who worked with the Carlton Football Club when they won the premiership in 1979, and later with the Australia II syndicate. "You can actually



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(clockwise from top left) Australia II skipper John Bertrand after the America's Cup win in 1983; hurdler Brendan Cole; sport psychologist Jeff Bond. modify and grow this area through consistent mental rehearsal. And because there are no mistakes in your mental performance, if you can reproduce that, there are no mistakes in your actual performance, either."

In the case of the Oarsome Foursome, "they could actually imagine themselves in the boat, and feel the race from start to finish", says Bond. "We'd run through the warm-up and the paddle to the start, we'd have the stopwatch, do the start, and then I'd talk them through the race. They'd make the calls in the boat they'd normally make; they'd execute the whole race exactly. You could actually see their stroke rate by their body movements." And they would finish within a second of their actual race time.

They went through this process hundreds of times. "They knew the Romanians would bolt, and they'd have to row them down – and they caught them exactly where they visualised they'd catch them. The actual race went exactly, exactly, as they planned it." As well as their powers of visualisation, the Oarsome Foursome had another thing in their favour going into Atlanta: they were a cohesive team. "Everything you do, psychologically, for an individual, you must do for the individuals in a team," says Bond.

But as Sandy Gordon, who worked with the Australian cricket team during their triumphant World Cup campaign of 1999, points out, "It's important to realise that the best teams in the world aren't full of well-rounded people who do everything well. They're full of people with particular, complementary skills, whose goals for the team trump their individual goals."

Flatteringly for us, Gordon – who is Scottish – believes that Australians (and New Zealanders, it must be said) are naturally brilliant competitive athletes, whether they're in a team or an individual sport. "Their mental toughness is something that's coveted by almost every nation on the planet," he says. "Australians are *built* for competitive sport. They seem to have, more than most other countries, the necessary resilience, self-belief and ability to focus during competition."

He thinks this comes from various sources, but that a lot of it is intrinsic to the amorphous notion of national character. "Historically, Australia put itself on the map through sport," he says. "We had nothing to lose and everything to gain by putting in effort. I think we also still have some notion of that old bush ethos: that very hardnosed, very tough underdog ideal. We still teach our children about the pride of never giving in, never quitting. That aligns nicely with the Australian work ethic. Australians are prepared to work to improve."

And just as you work at the physical skills of elite sport, so you work at the mental ones. "One of the misconceptions in sport psychology is that you can get very quick results from very superficial interventions," says Ruth Anderson. "But it's actually hard work, psychologically. An athlete has to be committed."

the NSWIS. He's also an elite karate athlete, and in 2011 he competed in the World Open Karate Tournament in Tokyo. His experience was not exactly what one might have expected, given his professional expertise. "I was a nervous wreck," he confesses. "I was trying to regulate my breathing; I was trying to regulate my emotions; I was trying to focus on the process – combinations, punches, kicks – I was trying to do all the sport psychology things I advise people about. But I realised I wasn't focused on them. At the back of my mind I was still thinking, "This is who I'm fighting; there goes the world champion', all that stuff."

The worlds were only Lee's fourth ever competition. He was beaten in the second round, which was absolutely as expected: certainly nothing to be ashamed of. "But even so — and I'm getting quite emotional talking about it even now — straight after the loss, I just bawled my eyes out. It was the realisation of what I could have done with my training, and what I should have done psychologically. The whole thing was quite a big emotional shock."

Looking back, Lee believes, "It's helped me shift my focus with athletes: understanding that environment and just how different it was. And knowing that I absolutely could have performed better if my mental state had been better."

And that, in the end, is the crux of the matter. In the world of Olympic sport these days, athletes in each of the 26 disciplines resemble each other more than at any point in history. They are encouraged – often specifically selected – as children or teens in particular sports on the basis of their physiology; they are trained and conditioned all through their careers according to internationally understood principles of sports science. And during their Olympic campaigns, their build-ups, their tapering and their physical preparation will have been very much the same.

And yet, despite all this, every athlete is different. "I wouldn't recommend what I did to everyone!" says Jodie Henry. "I used to be really sick with nerves, to the point where I'd almost refuse to go out there - 'I'm not doing it, I'm not doing it.' And I've seen so many very talented swimmers over the years, who do so well in training, and then when it comes to racing they fall apart. Because of the mental stuff - because they haven't found what helps them. You need to find the thing that works for the person you are." The thing that helps you in the lead-up to the Games; the thing that keeps you calm once you arrive at the athletes' village; the thing that makes sense of the maelstrom of uniquely powerful emotions that is the greatest sporting show on earth. The mind is the final frontier of sport, the last unique variable in the complex equation of victory.

People win gold medals at the Olympic Games not only because they are *citius*, *altius*, *fortius*. They must also because be *acutulior*: smarter, cleverer, better mentally prepared.

For the record, Ferry Lee has already begun his campaign for the World Open Karate Tournament of 2015. And he's thinking of consulting a sport psychologist. GW

THESATURDAYAGE JULY 7, 2012 Good Weeken CONCENTRATE ON PROCESS **ENTOURAGE** USAIN BOLT AND THE PEOPLE WHO KEEP HIM ON TRACK UNFORGETTABLE FROM OUR CATHY TO TERROR IN MUNICH ... 25 AMAZING MOMENTS **OVER THE TOP** POLE VAULTER ALANA BOYD'S PLANS TO FLY HIGH IN LONDON WHAT SETS A GOLD MEDALLIST APART? AMANDA HOOTON TALKS TO THE SPORT PSYCHOLOGISTS TRAINING BRAINS TO WIN. INSIDE THE MIND OF A CHAMPION