ANNUAL LECTURE 2012

'TOUCHING THE MYSTERY OF THINGS: ATTENTION, CREATIVITY AND FREEDOM'

There is a wonderful story quoted by Ken Robinson in the introduction to his book *The Element* which I would like to begin with this evening. A primary school teacher was giving a drawing class to a group of six year-old children. At the back of the classroom was a girl who generally paid little attention at school. In the drawing class, she did. For more than twenty minutes, the little girl sat with her arms curled around her paper, totally absorbed in what she was doing. Her teacher eventually asked her what she was drawing. Without looking up the little girl said, "I'm drawing a picture of God." Surprised, the teacher said, "But nobody knows what God looks like." The girl replied, "They will in a minute."

How natural it is for a young child to become absorbed in an activity which is loved and to have such confidence in the creative imagination. In many respects it seems that as we grow up our education and experience of the world cause us to lose touch with this simplicity and the fullness which it offers. This evening I will examine how this natural state might be sustained as the child matures and how the power of attention can open the door to creativity, freedom and joy. I will aim to examine the conditions that are conducive to developing a pupil's power of attention both at home and in school.

I will begin from the premise that the power of consciousness, which we might equally call 'life' or 'energy', is the power inherent in all that is: it expresses itself everywhere and through everything. What we call the power of attention is essentially a natural condition in which consciousness flows through the instrumentality of the organs of

experience such as: the senses; the brain; what we might call ‘intuitive intelligence’; and the heart. These organs of experience receive what is there.

If the power of attention and its ability to be absorbed is natural, we must examine what causes it to become obscured as the child develops. Any experienced teacher would observe that there are a few common features which produce a state of distracted attention. The first is boredom: if a child is insufficiently challenged his appetite for learning will become frustrated and seek stimulation elsewhere. Akin to this is loss of confidence and good teachers recognise that they should do everything possible to avoid either of these situations occurring. The third feature is rather more pernicious: emotional distress or deprivation causes an underlying level of disturbance that detrimentally affects the child’s freedom to enjoy a state of settled attention. Linked to this is anxiety which arises from excessive pressure to succeed and fear of failure. This is often related to a child’s perception of parental expectations and the fear associated with loss of love. Lastly, if a child has been reared in circumstances in which his attention repeatedly flits from one impression or activity to another, the ability to concentrate for sustained periods will become very limited. The principle applies that whatever is practised regularly becomes habitual.

It is a simple and stark fact that those children whose attention is directed and absorbed are generally successful in academic and creative work. With a sense of achievement comes a sense of personal well-being. It is worth noting that these are invariably the children whose positive self-esteem affords them the emotional security needed to establish positive relationships.

A well-known experiment was conducted with four year-old children in the late 1960’s by the psychologist Walter Mischel. It gave rise to some interesting findings regarding

the power of attention and its relationship to success. The following quotation is an edited description of this in a chapter entitled *'Control your Spotlight'* by Jonah Lehrer:

Walter Mischel invited the four year-olds into a tiny room, containing a desk and a chair, and asked them to pick a treat from a tray of marshmallows, cookies, and pretzel sticks. He then made the four-year olds an offer: they could either eat one treat right away or, if they were willing to wait while he stepped out for a few minutes, they could have two treats when he returned. Not surprisingly, nearly every child chose to wait.

At the time, psychologists assumed that the ability to delay gratification — to get that second marshmallow or cookie — depended on willpower. Some people simply had more willpower than others, which allowed them to resist tempting sweets and save money for retirement.

However, after watching hundreds of children participate in the marshmallow experiment, Mischel concluded that this standard model was wrong. He came to realize that willpower was inherently weak, and that children that tried to outlast the treat — gritting their teeth in the face of temptation — soon lost the battle, often within thirty seconds.

Instead, Mischel discovered something interesting when he studied the tiny percentage of children who could successfully wait for the second treat. Without exception, these "high delayers" all relied on the same mental strategy: they found a way to keep themselves from thinking about the treat, directing their gaze away from the yummy marshmallow. Some covered their eyes or played hide-and-seek underneath the desk. Others sang songs from "Sesame Street," or repeatedly tied their shoelaces, or pretended to take a nap. Their desire wasn't defeated — it was merely forgotten.

Mischel refers to this skill as the "strategic allocation of attention," and he argues that it's the skill underlying self-control. Too often, we assume that willpower is about having strong moral fibre. But that's wrong — willpower is really about properly

directing the spotlight of attention, learning how to control that short list of thoughts in working memory. It's about realizing that if we're thinking about the marshmallow we're going to eat it, which is why we need to look away.

What's interesting is that this cognitive skill isn't just a useful skill for dieters. Instead, it seems to be a core part of success in the real world. For instance, when Mischel followed up with the initial subjects 13 years later — they were now high school seniors — he realized that performance on the marshmallow task was highly predictive on a vast range of metrics. Those children who struggled to wait at the age of four were also more likely to have behavioural problems, both in school and at home. They struggled in stressful situations, often had trouble paying attention, and found it difficult to maintain friendships. Most impressive, perhaps, were the academic numbers: The child who could wait fifteen minutes for their marshmallow had a S.A.T. score that was, on average, two hundred and ten points higher than that of the child who could wait only thirty seconds.

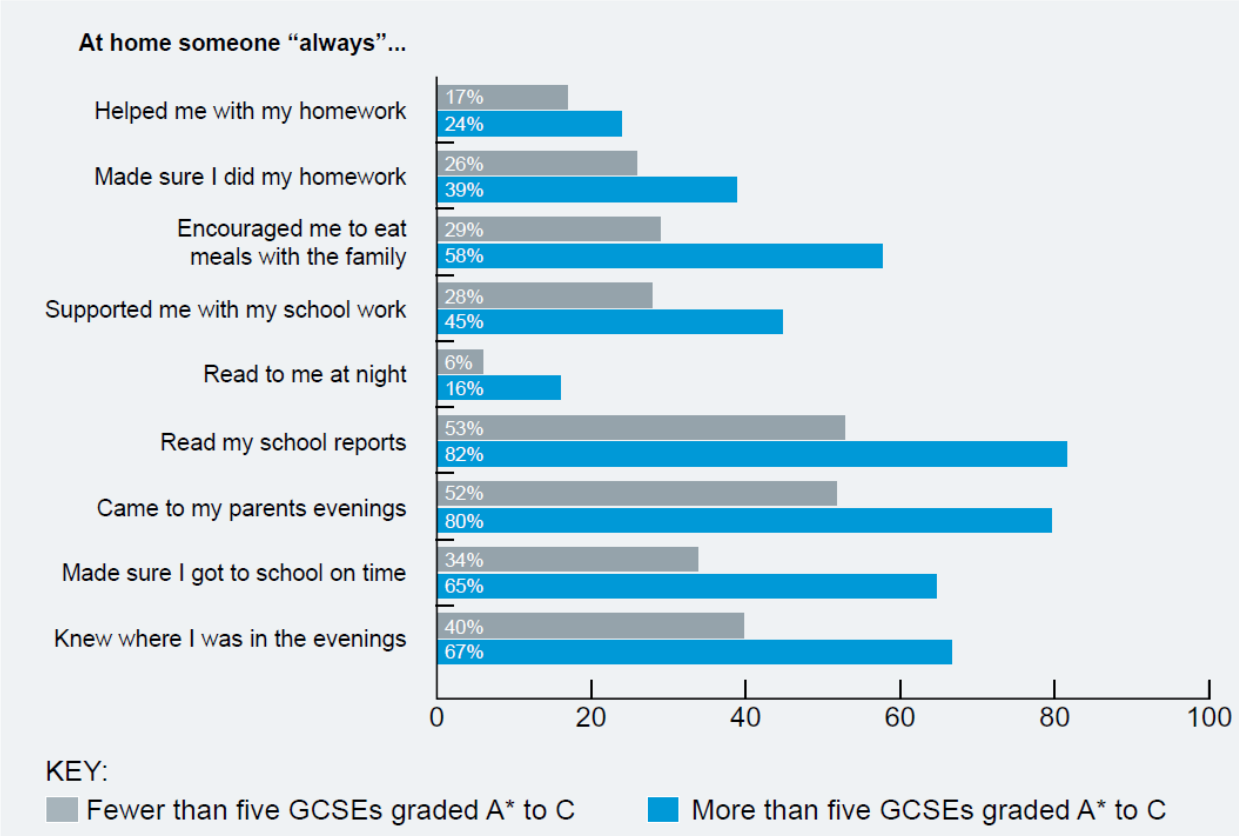
Lehrer continues: '*… this mental skill is only getting more valuable. We live, after all, in the age of information, which makes the ability to focus on the important information incredibly important. (Herbert Simon said it best: "A wealth of information creates a poverty of attention.") The brain is a bounded machine and the world is a confusing place, full of data and distractions — intelligence is the ability to parse the data so that it makes just a little bit more sense. Like willpower, this ability requires the strategic allocation of attention.'*

If the ability to harness the power of attention is so crucial to a successful and happy life, it is useful to consider those factors at home and at school which are most conducive to its development. With regard to the relationship between emotional well-being and the quality of educational achievement, recent studies commissioned by the Prince's Trust and published in a report entitled '*The Prince's Trust Youth Index 2012'*

delivered some interesting facts. It found that young people who had received the benefit of a stable and well-structured home life were happier and more successful in their academic outcomes than those whose lives lacked structure and routine. The factors provided by parents included: structure and direction, a set bedtime, a proper amount of sleep at night, regular family mealtimes, a stable environment, setting of clear boundaries, help with homework, reading at night, attendance at parents' evenings – and several others.

The research suggests that the support received during childhood can have an impact, not only on the educational attainment of young people, but also on wellbeing and confidence into adulthood.

Figure 8: The relationship between support at home during childhood and educational attainment



Other research conducted in 2004 by CR Mahoney and his colleagues found that consumption of breakfast increases cognitive performance, especially where increased visual attention is required. The type of breakfast also makes a difference to memory and auditory attention – breakfasts with lower sugar content and higher fibre content, such as oatmeal, appear to lead to an increase in these factors. Again, parents who insist upon such a simple element in the daily routine, greatly enhance their children's power to engage successfully in the classroom.

Many of the factors provided by the home which are conducive to young people's emotional well-being and settled state of attention, may be reflected in school life. Pupils flourish in a school which provides at least some of the following elements: clear boundaries; real communication between teachers and pupils; an environment which is free from harm; one which is kind and conducive to harmonious relationships; teachers who inspire a love of their subject and genuinely care about the development of their pupils. It is also important that in the junior phase of education the curriculum offers opportunity for the training of the power of attention. Children should learn how to work in a quiet classroom and engage in activities which demand a good measure of attention in the physical and mental domains. For example, this might involve arts and crafts which demand fine motor skills; learning by heart and using mental maths wherever possible rather than relying on a calculator. At senior level similar opportunities should be provided, but at a higher level, in which young people learn to engage their attention in increasingly challenging opportunities. Meditative practices are of course intrinsically and crucially helpful in enhancing the power of attention.

An account from a 17 year old girl at St James exemplifies the way in which the power of attention gives way to joy:

'I had recently been painting an icon that had been taking me quite some time. After I had finished the painting I then had to gild it with gold leaf. This is an extremely stressful process. I had to devote all my attention to placing the gold lightly on the canvas: it was delicate and could easily rip; therefore, I had to be extremely careful. I discovered that when I had my attention completely focussed on what I was doing, I was completely absorbed and it was as if nothing else was around me and as if nothing could distract me. When I had finally completed the gilding the catharsis that I felt was not of pleasure that I had finally finished, but that I had paid such great attention to it and managed to achieve something very beautiful. The happiness that sprang from this stayed with me.'

At this point we must stop to consider what our vision of human potential and fulfilment actually is. We tend to have a very limited view that considers academic achievement to be the primary indicator of success and therefore an intelligent person is academic. In his book *'The Element'* to which I have already referred, Ken Robinson explains that the idea that intelligence demonstrates itself in the powers of logic, critical thinking, ideas, reasoning and analysis is both historical and limited. He maintains that *'this way of thinking about intelligence has a long history in Western culture and dates back at least to the days of the great Greek philosophers, Aristotle and Plato. Its most recent flowing was in the great period of intellectual advances of the seventeenth and eighteenth centuries that we know as the Enlightenment.'* He further explains that the notion that intelligence is adequately measured as a fixed quantity of IQ has been overtaken by a number of psychologists who recognise that there are multiple intelligences at work in us all: *'...we all have different strengths in different intelligences and that education should treat them equally so that all children receive opportunities to develop their individual abilities.'* These additional intelligences are

variously described but include creative intelligence, practical intelligence, emotional intelligence and social intelligence.

Our interest is surely to provide the circumstances in which a human being can flourish according to his or her own nature and thus find out who they really are. A person needs to feel free from the fear of external expectations to succeed in a particular way; fear blocks the way to development. We need to create the environments at home and at school where our children can discover their own element, as Ken Robinson puts it, *'the place where the things we love to do and the things we are good at come together.'* Most of us have a very limited appreciation of our own natural capacities. A fundamental limitation, says Ken Robinson, *'is in our understanding of the range of our capacities. We are all born with extraordinary powers of imagination, intelligence, feeling, intuition, spirituality, and of physical and sensory awareness. For the most part, we use only a fraction of these powers, and some not at all. Many people have not found their element because they don't understand their own powers.'*

Those of us who are charged for a time to walk alongside a human being as it passes through certain stages of development, would wish to provide as wide a range of educational experiences for them as possible. Meanwhile, we need to be able to watch those in our care without imposing any idea or desire of how we would like them to be or what we would like them to do. As they play or freely engage, what are they naturally drawn to do? What kinds of aptitudes do they display? What absorbs them most? What questions do they ask? As Ken Robinson puts it, *'This is about looking into the eyes of your children ...and, rather than approaching them with a template about who they might be, trying to understand who they really are.'*

There are some fascinating accounts of people who describe what it is like to be 'in their element'. When our consciousness is entirely absorbed in what is there, the creative domain opens up. It is highly intelligent, full of potential, and points the way to the limitless.

Ewa Laurance is the most famous billiards player in the world. When she was still at school she came across the game being played and fell in love with the knowledge and skill which were intrinsic to the game. She knew that she wanted to dedicate her life to playing billiards. Her parents supported her in what became a six to ten hours a day practice regime with homework fitted in around this time. This is her description: *'You're almost unconscious of what's going on around you. It's literally the most peculiar feeling. It's like being in a tunnel but you don't see anything else. You just see what you're doing. Time changes. Somebody could ask you how long you've been doing it and you could have said twenty minutes but it was actually nine hours. I've never had it with anything before or since, even though I am very passionate about a lot of other things. ...I just love the physics and geometry of it ...I wasn't at all interested or good at geometry or physics at school. For some reason, when I'm playing I see it a lot. I look at the table and I literally see lines and diagrams all over the place.'*

At this point I would like to show you some examples of what has been described. Observe how the combination of perfected skill and total absorption in the activity gives rise to a profound beauty of expression, in which the elements of the action are displayed in their fullness and that is all there is. One can see and experience this in all sorts of performances, in acting, in dance, in musical performances, and in sports.
What we are about to see is an excerpt from the ballet Giselle which was filmed in 2006 at London's Royal Opera House. The dancers are Alina Cojucaru and Johan Kobborg.

Show: Dancer Clip 2

Now I would like to show you an example of the same absolute absorption; however, in this case, the ability to enter into the power of feeling and speak to us through the heart is particularly strong. Roberta Flack sings *The First Time Ever I Saw Your Face,* (Top of the Pops 1972).

Show: Roberta Flack

Another feature common to those who are familiar with this absorption or totality of engagement is how a flow of creativity arises. As Ken Robinson describes: *'...ideas come more quickly, as if you're tapping a source that makes it significantly easier to complete your task...So there's a real sense of ideas flowing through you and out of you; that you're in some way channelling these things. You're being an instrument of them rather than being obstructive to them or struggling to reach them.'*

In an interview for the Paris Review, Louise Enrich, an American author described how, on occasions, she experiences this flow of creativity in her writing:

"I suppose one develops a number of personas and hides them away, then they pop up during writing. The exertion of control comes later. I take great pleasure in writing when I get a real voice going and I'm able to follow the voice and the character. It's like being in a trance state. Once that had happened a few times, I knew I needed to write for the rest of my life. I began to crave the trance state. I would be able to return to the story anytime, and it would play out in front of me, almost effortlessly. Not many of my stories work out that way. Most of my work is simple persistence.'

Mozart famously described the same kind of creative flow when writing music:

'Nor do I hear in my imagination the parts successively, I hear them all at once. What a delight this is! All this inventing, this producing, takes place in a pleasing, lively dream….My subject enlarges itself, becomes methodized and defined, and the whole, though it be long, stands almost complete and finished in my mind, so that I can survey it, like a fine picture or a beautiful statute, at a glance.'

Whilst we might stand in awe at the wonder of this creativity, it would be an error to overlook the essential part that sheer hard work must play in these discoveries. In 1996, Prof Andrew Wiles, a shy academic working at Harvard and Cambridge, announced to the world that he had proved Fermat's Last Theorem, a problem that had baffled mathematicians since it was first formulated three hundred years ago. Pierre de Fermat was a seventeenth-century French mathematician and had made several assertions in number theory, all but one of which had since been proved to be true. However, this Last Theorem, as it came to be known, seemingly could not be proved. Since becoming aware of the Theorem's existence as a schoolboy, Wiles determined to go about finding the proof. On becoming a mathematics professor, he devoted several years exclusively – and without collaboration - to the solution of Fermat's Last Theorem. In this video clip, you will see Wiles describe what his long journey of discovery meant to him, and the moment when a spark of illumination provided the final resolution to the proof of Fermat's Last Theorem.

Show: Maths clip 3

In his book *The Psychology of Optimal Experience,* Dr. Mihaly Csikszentmihalyi explains that the elements of enjoyment in optimal experience include: *' facing a challenge that requires a skill one possesses, complete absorption in an activity, clear*

goals and feedback, concentration on the task at hand that allows one to forget everything else, the loss of self-consciousness, and the sense that time transforms during the experience…The key element of an optimal experience...is that it is an end in itself. Even if initially undertaken for other reasons, the activity that consumes us becomes intrinsically rewarding.'

It is perhaps stating the obvious to say that happiness and energy increase when we find ourselves in our 'element', as has been described in these examples. When we are engaged in what we love to do, we naturally tap into a primal source of energy and find ourselves 'more alive' because of it. In this fortunate situation, the existential misery which so commonly arises from a deep sense of inadequacy, confinement, or isolation, dissolves and we enter the free flow of life. Such people are an inspiration and their joy contributes significantly to the world in which we live.

I would now like to show you a few excerpts from Christopher Nupen's film entitled *Remembering Jaqueline du Pre.* Without doubt Jaqueline du Pre was a prime example of someone who discovered the joy of their 'element' from a very young age when she fell in love with the sound of the 'cello. In the first clip, she talks about her admiration for her teacher William Pleeth with whom she learnt for a period of seven years. In the second clip we see her practising with Daniel Barenboim who became her husband. In the final piece we see her in performance of Schubert's Trout Quintet; here we see her enter into the movement of the trout with remarkable totality. The absorption, sheer joy and freedom which she exhibits are plain to see.

Show: J. du Pre 1, 2, & 3

The final step in this enquiry is to marvel at the realm of beauty and creativity which open up when the combination of absorption and perfected technique meet the event. There is obviously a great deal of work to do to perfect a technique: for this we need teachers, dedicated practice and patience. The absorption requires absence of interference from the ordinary thinking or wandering mind so that attention can settle and remain focussed. However, there does appear to be an additional factor which is very subtle. The particular presence of an individual entity which we would ordinarily call the 'person' does not impress its limited sense of locality or tendencies upon the action. In simple terms, what I normally call 'me' is not there; it would be a mistake to imagine that this requires a special kind of mystical state or spiritual prowess. This is illustrated by the Grand Prix racer Jochen Rindt who said that when he is racing, *'You ignore everything and just concentrate. You forget about the rest of the world and become part of the car and track. It's a very special feeling. You're completely out of this world and completely into it. There's nothing like it.'*

Zen seems to understand the extreme subtlety of this: when the subject-object relationship of 'I' as the subject and the world as an 'object' dissolves, separation disappears. What *is* there, is seen very differently. In real creativity, this sublime simplicity and its mystery open up.

Herrigel describes Zen in archery as follows:

'...The archer ceases to be conscious of himself as the one who is engaged in hitting the bull's-eye which confronts him. This state of the unconscious is realized only when, completely empty and rid of the self, he becomes one with the perfecting of his technical skill, though there is in it something of a quite different order which cannot be attained by any progressive study of the art.'

Musashi, the famous Japanese swordsman, describes this as the *'execution of technique without any self-conscious awareness of doing so. By the same token, proper zanshin is*

indicative of the fact that the swordsman experiences no discontinuity between his surroundings and himself.' …or, for the purpose of this enquiry, between the action and himself.

We will see something of this in action as we watch the famous pianist Lang Lang play Liszt's *Consolation* on the last night of the Proms 2011 at the Royal Albert Hall.

Show: Lang Lang

In conclusion, I hope tonight that in touching upon a very subtle and large subject, I have shown that when a person discovers that which he or she naturally loves and has aptitude for, the imaginary sense of a confined and limited self dissolves into the fullness and freedom of all that really is. It is here that everything is full of potential and we touch the mystery of life.

As guardians of growing human beings, we would undoubtedly wish to provide a conducive environment in which the uniqueness of each child can find its own way to fulfilment. We need to stand alongside and be prepared to watch and follow what emerges with intelligence, courage and love.

The power of attention is a key which opens the door to the fullness of life. As it strengthens, creativity is released and talents flourish. This is good for the individual and for mankind as a whole. As the world evolves, the future welfare of our communities and institutions will depend upon it.

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