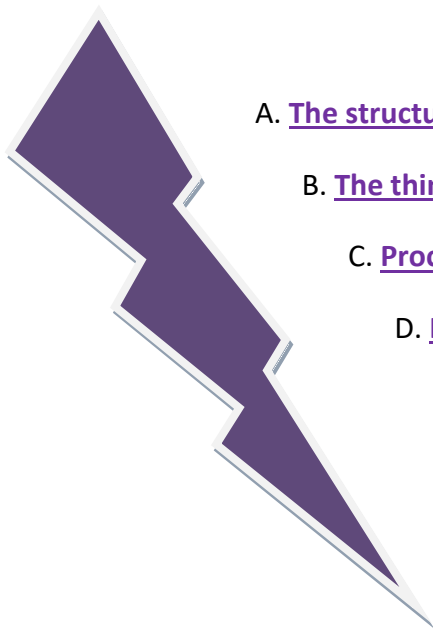


Jan-Willem Van Den Brandhof, The Business Brain Book (2008)

-- transcript

"If the brain were so simple we could understand it, we would be so simple that we couldn't."

Lyall Watson



- A. The structure of the brain
- B. The thinking process
- C. Processing information & learning
- D. Intuition / gut feeling / hunch / lateral thinking
- E. Goals
- F. No stress

A. The structure of the brain

The genetic possibilities of sperm and ovum enable the creation of 300K billion million unique people.

The human body consists of 100 trillion cells. Every second an estimated 6 trillion reactions take place in every cell. After a year, 98% of the atoms in our bodies have been replaced by different ones.

We have about 100 billion neurones, each able to connect to 50K other neurones. Between ages 20 and 70, the brain loses about 18 million neurons per year.

A study of Einstein's brain revealed that he had 400% more glial cells per neuron than average; glial cells provide nutrients to neurons.

Neurons make connections between themselves on the basis of stimulation, experience and expectation.

Intelligence is about the number of connections between the neurones; by stimulating our brain, we generate more connections and improve the quality of the connections. Repeating old information strengthens the existing connections (also reducing the risk of brain diseases).

Professor Rosenzweig proved that stimulation will make the number of connections between brain cells increase at a much higher rate than the speed at which brain cells disappear. In doing so, he demonstrated that the brain can become more intelligent with the passing of years, instead of regressing.

The brain creates patterns, which is why:

the more → the more

the less → the less

In this respect, the brain can be viewed as a muscle – *use it or lose it*. An effort is required to re-organize those patterns, which is always possible thanks to the lasting plasticity of the brain.

Physical activity is important for the brain (Kasparov used to do 2 to 3 hours a day of physical fitness).

Left & right hemispheres

Research into the functions of the brain has found that each side seems to specialize in different activities, and that most of us are influenced by one side more than the other.

The left hemisphere controls the right side of the body, and specialises in language functions, analysis of information and rational thought. The right hemisphere, controlling the left side of the body, is nonverbal, creative and visual. The left brain wants to analyse everything, while the right brain sees the whole picture.

<u>LEFT hemisphere</u> analytical – logic, series, reason, numbers	<u>RIGHT hemisphere</u> creative – images, colours, dimensions, music, intuition
VERBAL* : the power of speech to describe things specifically	NON-VERBAL : body language; an awareness of things which cannot necessarily be articulated
SYMBOLIC : the use of signs to represent things	SYNTHETIC : collecting ideas, feelings and facts together to form a whole
ANALYTICAL : a 1-step-at-a-time way of thinking	INTUITIVE : sudden, inexplicable insights not necessarily resulting from any particular train of thought but springing fully-formed into consciousness; the “hunch” of the outstanding detective; the problem-solving dream
RATIONAL, LOGICAL, LINEAR : making decisions based on facts; reasoned arguments; logical progression of ideas	NON-RATIONAL : the power of imagination, fantasy; response to films, music, poetry, etc
TEMPORAL : awareness of time and sequence in logical order	NON-TEMPORAL : no sense of time in terms of hours, minutes, days; often observed in situations where one is so engrossed by something that “time flies”
DIGITAL : using numbers	SPATIAL : orientation in space; understanding how parts of a thing fit together to form a whole

* In the West, language is processed in the left part of the brain. In Asian countries like China and Japan, it’s in the right (e.g. Chinese writing consists of images, so language is executed in the right hemisphere).

When we use the left and the right side of the brain together properly, we utilize our brain better by a factor of 5 to 10 !!!

The ability to combine intuitive and analytical skills should be a prerequisite to management functions.

The right brain is underestimated by education/sometimes companies in western countries.

Newtonian world view: the world as a machine

Juggling with balls can be a good exercise to relax your mind and to improve the collaboration between the left and right hemispheres. Danish pupils are taught to juggle for this reason.

Another exercise to force the use of both hemispheres would be to doodle same patterns with both hands at the same time.

Drawing is a good way to relax, develop your right brain hemisphere and improve your powers of observation, memory and creativity. Business managers who learn how to draw benefit enormously in their working environment.

* * *

B. The thinking process

The thinking process can be described using the following model.

First, 2 general layers:

- The unity consciousness
 - Related to energy, which represents the essence of all thinking
- The collective subconscious (introduced by Jung)
 - Contains the prototype of human thinking, as handed down by previous generations
 - In biology, Rupert Sheldrake has developed a fascinating concept, relying on the idea that there are fields in existence that control the behaviour of animal species. As soon as part of the population has learnt a certain type of behaviour, it will be easier for any following members of the group to adopt it.

Then 3 processes:

- The conscious process
 - Conscious thinking diminishes the influence of the subconscious
- The subconscious process:
 - many times the size of the conscious process
 - Handles the execution of automatism and habits
 - Does not judge on the basis of truth, good and evil.
- The creative subconscious process
 - it provides the action and energy that ensures the individual can continue to keep fitting into his world
 - Makes the individual act according to his self-image
 - if does not make any difference whether the self-image is positive or negative: in brief if the individual has a positive self-image, and the individual sees himself performing well, then this process will make every effort to ensure that the individual is proven right

Every thought causes a physical reaction. Our thought determine how we feel, and how we feel determine our actions, which in turn influence our thoughts.

Self-image

If you think you can or you can't, you're absolutely right. Henry Ford

➔ importance of having a positive self-image

It is obvious then that any change has to come from inside; if we do not adjust our self-image but still try to perform differently, or try to bring a new habit into practice, this will mean fighting a losing battle. The creative subconscious will make sure that we fall back into the pattern of the self-image.

Therefore, our self-image consciously has to be adjusted consciously, **step by step**.

There are also external influences acting on our self-image. The greater our confidence and the better our self-image, the less chance there is that external influences will have a negative impact.

Among external influences, one acts as a self-fulfilling prophecy: it's called the Pygmalion effect. Numerous experiments illustrate this effect. For example, a number of teachers were informed that they had been selected as the best teacher and will thus take part in an experiment. They were told that they would be given the best pupils in the entire school in order to determine at the end of the school year what results can be achieved when having the best pupils in combination with the best teachers – the pupils were told the same story. At the end of the year, the group indeed performed significantly better, despite the teachers and pupils having been selected at random.

High expectations and the corresponding confidence ensure better results.

Think of what you want, and do not think of what you do not want.

“Our minds are like gardens in which beautiful flowers and plants or weeds grow. The flowers and plants are positive thoughts; if we do not have any of those then weeds will automatically start to grow.”

Jan-Willem Van Den Brandhof

Anything that we think of grows.

How often does it happen that people who try to give up smoking constantly think “I must not smoke, I must not smoke”. The result is that they constantly think of smoking.

In sports this is a well-known phenomenon. Tennis players for instance will not think “I mustn't hit the ball into the net” but rather where they wish the ball to end up. They will visualise this and involve as many senses as possible, such as hearing the noise of the ball and seeing a little cloud of dust in the desired corner.

application: [goal visualisation](#)

Avoid the following words: I must / I should / I cannot / yes, but...

Instead, say: I want / I will / I have chosen / I have decided / yes, and...

* * *

C. Processing information & learning

"Give a man a fish and he will feed himself once. Teach him how to fish and he will feed himself all his life. Teach him how to learn and he will not have to eat fish all the time."

Jan-Willem Van Den Brandhof

"The illiterate of the future are not those who cannot read or write. They are those who cannot learn, unlearn, relearn."

Alvin Toffler

"The modern era provides us with a false form of security because of the large quantity of available information. However, what really matters is how we learn to control the data flow."

Johann Wolfgang von Goethe, 1832

"The only way to deal wisely with the growing avalanche of information is changing to pattern recognition."

Marshall McLuhan

"The possibility of learning faster than the competition could very well prove to be the only remaining distinguishing advantage."

Arie de Geus

"The manager of the future will be a learning guide." Peter Drucker

Companies that apply accelerated learning methods confirm that it is not just about saving time and money but also that their employees are better able to work both independently and in teams. Middle management is increasingly replaced by communication technology; this means it is of vital importance that employees are able to manage themselves well, a quality that the new training techniques also provide.

"I love to learn but I hate to be taught." Winston Churchill

Learning principles

Learning is creating new connections between neurons.

The better the concentration, the better the quality of these connections is.

The more connections that are made, the easier it is to create new connections.

Learning new things that we can associate with existing knowledge and that we are able to see in patterns speeds up the learning process.

Information that is emotionally charged is remembered faster and easier.

The more senses (parts of the brain) that are mobilised simultaneously, the quicker we learn and the better we remember.

Our brains love images.

The fitter our bodies are, the better our brains function.

We learn faster when we are relaxed.

For storing information in our long-term memories we need to repeat the information a few times.

The more you know, the more you are able to know.

We learn most by doing things for ourselves.

“Tell me and I listen. Show me and I look. Let me experience it and I learn.” Lao Tzu

Learning techniques

Importance to pausing and repeating.

1. Motivation

Motivation is the first requirement for achieving results. Our mindset or attitude is really the basis for everything.

Part of the brain responsible for our motivation is the accumbens, a small area that becomes active when we are motivated and want something badly. The messenger molecule, dopamine, plays an important part in this. Dopamine increases when observing things that are important or that motivate action for having fun or avoiding pain.

The way we look at something determines our mood and thus motivation. We can see its negative sides or we can focus on its positive sides. We are in control of this focus. Our internal dialogue, the “self-talk”, of which we are 100% responsible, is of vital importance to focus on the positive sides and motivate ourselves.

Make sure that you have challenging, achievable [goals](#). By keeping them in mind at all times, our motivation will strongly increase. Therefore, when learning new things it is paramount to view these within the context of the end result.

Small groups perform best when they consist of employees of the same sex and a leader of the opposite sex. (Dr P. Verkerk)

2. Concentration

“Concentration is the secret of strength in politics, in war, in trade; in short, in all management of human affairs.” Ralph Waldo Emerson

One of the qualities of geniuses.

concentration = being involved consciously in only one thing at a time.

This sounds easy but it is in fact hard, in particular because there are so many things that can distract us or that we allow to distract us.

There is a lot to learn from musicians, athletes. Frenetic efforts to concentrate often have the opposite effect. Having a real interest in the subject itself in particular will lead to better concentration.

When people are totally engaged in what they are doing without paying attention to place, time and themselves, this results in the “flow” phenomenon. Csikszentmihalyi, an American social psychologist, defines “flow” as a state of full concentration. This can sometimes be achieved by focusing on our breathing (& on the targeted activity).

The basic rule with regard to concentration is focusing on one thing at a time and not attempting to multi-programme, because our brains are not set up for that – at least not for having conscious processes taking place simultaneously. Therefore, we should be involved in just one thing at a time, entirely complete this and only then continue with the next. By fully completing things we will no longer end up with stacks of unfinished business, which only cause more irritation and stress.

“I never could have done what I have done without the habits of punctuality, order and diligence, without the determination to concentrate myself on one subject at a time.” Mark Twain

Concentration involves the capacity to observe properly, and not be pre-conditioned by the images that already exist in our brains → unbiased observing. WE often use the images that are already present in our memory. Ex: anthropologists showed the members of a tribe in Papua New Guinea images and videos of Manhattan for an hour: skyscrapers, crowds, cars, bridges, motorways, airplanes, etc. Afterwards, they were asked about what they had seen. They answered a chicken. Researchers had to take a closer look at the film to understand; they discovered a man with a chicken walking across the screen for a second. All the little images

of New York did not have the “hook” in the brain that the tribes people were able to connect the images to. They only had room for that chicken.

Concentration can be increased by reading faster; it significantly improves when reading 800 to 1000 words per minute.

3. Speed reading

“Our lives can be changed in two ways: through the people we meet and the books we read.” Harvey Mackay

“A room without books is like a body without a soul.” Cicero

We think at a rate of 800 to 1400 words per minute, so when we read at 250 words per minute there is a lot of idle time, which means that we are doing other things simultaneously, thinking about different things than the ones we are reading → reading faster improve concentration.

When we read at 800 words per minute, the brain is kept busy and has no time or chance to get involved in anything else.

Our brain needs a lot of oxygen and nutrition, especially when we are speed reading. If we bend our heads down, the supply is squeezed off. This reading posture is best realized by working at a sloping desk or by putting a slanting stand on our reading tables.

The effects of speed reading are not just that we can process a lot more information in a relaxed manner (our eyes make fewer fixations and our brains are more concentrated), but also that we will start to read more conceptually. Because we process a lot of information in a short time span, we are able to see the coherence in the material and put it into context. This is all about creativity.

President Franklin D. Roosevelt read about 3 books a day.

Mind maps

Mind maps use several parts of the brain, which helps memorise better, learn faster and improve the big picture.

They represent entire structures, which helps us maintain overall perspective and makes us better able to separate main issues from side issues. The inherent hierarchy of mind maps consists in having the most important pieces of information close to the centre.

Software used by companies (half of the Fortune 500 companies) and individuals alike:

- MindManager (www.mindjet.com)
- Kwikpoint (www.kwikpoint.com) for worldwide-used symbols

Memory

3 types of memories can be distinguished:

- the sensory memory

All the information that comes in through our senses is stored in the sensory memory.

Experiments carried out by Canadian professor Penfield found that touching certain parts of the brain using electrodes resulted in entire memory areas resurfacing. In this way, things that people considered long forgotten could be reactivated.

- the short-term memory / working memory

stores pieces of information for less than a minute

acts like a filter that protects us against an overdose of unimportant information

- the long-term memory

Its capacity is infinitely large; the more we exercise and use our memories, the better they become.

The usual method for storing information in the long-term memory is by repeating it over and over again. Research done by Ebbinghaus (around 1880) tells us that we have forgotten about 80% of what we have learnt after 24 hours, unless we repeat it. We should in fact utilise the so-called golden windows to write the pieces of information in our memory:

- after 10 min
- after a day
- after a week
- after a month
- after 3 to 6 months

Matters that are very emotional will be stored in the long-term memory immediately; therefore, to memorize things better we should try to evoke emotion with them.

The step towards the long-term memory is via the short-term memory, whose storage capacity depends on one's motivation and concentration.

It is good to pause every 45 minutes to one hour of learning / reading, because of 2 factors:

- the decreasing concentration after that period; neurotransmitters taking care of the signal between neurons get exhausted after 50 minutes

- we can make better use of the association effect; the number of connections that need to be made between neurons is so large that it takes some time to realize the integration
→ lag effect of the brain

When pausing, it is good to do a bit of physical exercise (walk, climb stairs, go outside, etc).

Remembering

What do we actually remember during a lecture, a presentation, training session or conversation?

5 main points:

- information at the start
- information at the end
- information that is repeated
- information that can be associated emotionally
- information that is striking, bizarre or crazy (Von Restorff effect)
- information that is associated with images or metaphors (which require an activity from the brain, so it is active engagement)
- information that is associated with music

It is good to learn while listening to classical (more specifically, baroque) music. It relaxes, which helps for concentration, and helps to use more senses to associate and store information.

“Rhythm and harmony touch the soul directly and teach us decency and a sense of beauty.” Socrates

Framing

We only have 45 to 60 seconds to come across convincingly in a discussion, speech or presentation. During this time, information is compared to existing, stored information from the memory, and based on this a position is determined. The first impression is very powerful. If it is negative, it will require a lot of effort to change it. This is one reason it is better to tell people good news first.

The first minute for convincing someone has to be used carefully.

In many companies, board meetings take place on Monday mornings. It would, however, be better to hold meetings in which important decisions are made on Friday afternoons. When such meetings take place on Monday mornings, it means that any decisions have to be carried out immediately without any chance for them to sink in. Therefore, this sometimes results in premature initiatives. When meetings are held in Friday afternoons, it is possible to evaluate the events of the week and make decisions accordingly. They are then allowed to sink in over the weekend, and instead of spending the weekend thinking about how to best defend our proposals to the management team, we contemplate how to best implement the common decisions with staff and business relations. The focus shifts entirely, and the results are demonstratively better.

D. Intuition / gut feeling / hunch / lateral thinking

= interiorised experience which is not formalised

"It is only with the heart that one can see rightly, what is essential is invisible to the eye."

Antoine de Saint-Exupéry

"The heart has its reasons, which reason knows nothing of." Blaise Pascal

"The only valuable thing is intuition." Einstein

"Intuition will tell the thinking mind where to look next." Dr Jonas Salk, discoverer of the polio vaccine

"When delineating the business strategy, an entrepreneur should not overestimate the importance of figures and mathematical models as conjured by the computer. Conversely, intuition, creativity and experience play a much more important part in this."

Floris Maljers, Chairman of the Unilever Board of Directors

"I take my decisions purely on emotional ground; I find the arguments to go with them afterwards."

Aad Muntz, advertiser

In marketing, intuitive intelligence is the most demanded quality.

John Nesbitt, cognitive psychologist from the University of Michigan, declared that "Intuition becomes increasingly valuable in the new information society precisely because there is so much data." Given the increasing demand on our limited supply of mental energy, intuition represents a much needed form of cognitive economy.

Warren Buffet remains the market king, because he has a better "market sense" than other traders. He has the uncanny ability knowing when to buy and when to sell. More importantly, he is able to pick stocks which become clear winners over the long haul.

Richard Feynman, a Nobel laureate in Physics, was able to discover important truths in theoretical physics simply by observing a water sprinkler or a man making pizza. He was also known for his ability to use short-cuts to arrive at the same mathematical answers as time-consuming laborious calculations.

Research carried out by the American Agor shows that the use of intuition in mapping out strategies resulted in achievement of the set goal in approximately 90% of cases, whereas strategies set up and executed strictly rationally turn out to achieve the set goal in only 5 to 10 % of all cases.

The explanation for women generally having better intuition is attributed to the fact that in women the corpus callosum connecting the brain hemispheres has up to 30% more connections. In Agor's study, women were less inclined to admit that they were using their intuition because they feared this would be considered a sign of weakness.

Daniel Cappon built the Intuition Quotient Test, or IQ2, around 20 intuitive skills (1993):

http://www.winstonbrill.com/bril001/html/article_index/articles/1-50/article47_body.html

The different types of intuition (by Pr Paul T. P. Wong)

http://www.dr paulwong.com/index.php?option=com_content&view=article&id=77:intuition-the-best-kept-secret-for-survival-and-success&catid=42:cl&Itemid=59

The following list is not comprehensive, but it represents the different phenomena that have been associated with intuition. Each type may involve different mechanisms and requires a specific research method.

1. Primitive instincts of self-preservation, such as the flight-or-fight syndrome, avoidance responses, pleasure-seeking and instinctive responses to reduce primary needs, such as food, water and safety.
2. Conditioned emotional responses, which range from fear, aversion, suspicion, attraction, and attachment.
1. Bodily intuition includes messages about bodily needs and conditions. Medical intuitives such as Schulz and Northrup (1999) emphasize the need to use intuition to decode these somatic messages in order to maintain and enhance our health and well-being.
2. Mystical intuition encompasses a wide variety of subjective experiences, such as spiritual guidance, inner light, psychic intuition, fortune telling, prophetic insight, detecting energy fields, and ESP. Is this related to spiritual intelligence?
3. Interpersonal intuition refers to the ability to pick up clues about relationships. It also includes the capacity for empathy and character judgment. It is clearly related to emotional intelligence (Goleman, 1995). The proverbial women's intuition is particularly active in this area.
4. Practical intuition – in solving everyday problems, the capacity of anticipating the problem and finding the best solution, quickly and effortlessly. This type of intuition may be related to practical intelligence (Sternberg, 1997) and fluid intelligence (Cattell, 1987).
3. Expertise intuition is domain-specific and it is closely related to expert knowledge and critical insight. This ability of "thinking without thinking" (in Blink, Gladwell, 2005) cannot be easily disentangled from special talents in any given field.

Most hunches do not operate in a vacuum. What appears to be an unconscious automatic intuitive process may be schema-driven. In other words, the distilled and generalized knowledge of what works in what situation may be tucked away somewhere in the brain and can be activated automatically by certain situational clues; such schemas are being updated constantly as a result of exposure to new experiences and knowledge.

Pr Paul T. P. Wong's subsequent definition of intuition:

Intuition is a collection of interrelated abilities or skills, which can be executed automatically and seemingly unconsciously. It involves the ability to see deeply, clearly, and holistically. It is capable of seeing the best solution to a problem before finding it. It also includes the ability to grasp immediately the significance and essence of the situation and make instant decisions. It is mostly based on deeply ingrained propensities and heuristics, but it may also reflect a well-informed mind that is agile, fluid and open to all possibilities.

How to cultivate intuition?

Salls (2005) makes an important point by reminding us that we need to let go our ego and let go our attempts to be in charge/controlling everything around us. Egotistic thinking, blind ambitions, and selfish biases are all detrimental to intuitive functioning. Our obsession with pride and power can really prevent our intuition from flourishing.

- ➔ We can develop our intuition only after relinquishing control and keeping in check our emotional impulses. (emotional intelligence)

The recurrent theme is that the quality of intuition depends on positive experience and helpful feedback. This point is especially important for domain-specific expert intuition. In addition to learning automatically from appropriate and good experiences, we also need to learn skills based on scientific method. We need to develop skills in **observation, speculation, testing, and generalization** to the point where the scientific way of learning becomes automatic and intuitive.

Orientate yourself broadly. The more knowledge and experience you have outside your field, the better use you will be able to make of your intuition.

"Principles for the development of a complete mind:

- *Study the art of science*
- *Study the science of art*
- *Develop your senses; in particular, learn how to see*
- *Realize that everything connects to everything else."*

Leonardo Da Vinci

Look for analogies. A study carried out at Rutgers University into the 3.5 million pages (!) of notes and letters left by Thomas Edison provided fascinating insight into the power of the analogy, as used by the inventor who had 1093 patents registered in his name.

Make a note of any interesting inspiration or idea immediately, otherwise it will disappear.

E. Goals

It is of major importance to realize that achieving the end result is not the all-important thing. What is important is being engaged in the road that leads to that result every day. It's the hunt, not the kill, that's the thrill.

Every self-respecting business works according to business plans. They put a great deal of energy into strategic plans, which often look five years ahead. In Japan, there are companies that use 50- and even 250-year plans. In turn, the strategic plan is the basis for the annual business plan, which is vital to the company because it not only records its goals but also specifies the means to achieve them. The business plan also informs everybody in the company of what needs doing and what will be successful.

British expression: failing to plan is planning to fail.

In our brain, the **reticular activating system** acts like a filter and determines the way we see things around. It is adjusted through having goals. This substantial nerve bundle keeps the cerebral cortex active, though it needs to be stimulated itself.

The things that we often think about tend to grow. If we fill our brains with thoughts of challenging goals, we are involved in exciting things. This leaves less room for being occupied with negative matters or trifles.

Working with clear goals provides energy, motivation, results in less stress and leads to success.

We can do anything we want if we stick to it long enough.

Helen Keller – American author, political activist, and lecturer, she was the first deaf blind person to earn a Bachelor of Arts degree.

All our dreams can come true, if we have the courage to pursue them. Walt Disney

Examples:

For many years it was considered impossible to run the mile in less than 4 minutes. On 6 May 1954, British athlete Roger Bannister ran the mile in 3 minutes and 59 seconds. It is remarkable that, once it was proven possible, within a week six other athletes managed to run the mile in less than 4 minutes, and eight others achieved the same within a month.

Evelyn Glennie, from Scotland, has a brilliant career as a percussionist soloist and gives concerts all over the world - stone deaf since she was 12. She plays barefeet, to feel the vibrations better.

Jean-Claude Killy was a very average French skier. Nevertheless, he wrote the following on the back of an envelope: "I will win gold three times at the Olympic Games in skiing". He carried this envelope in his ski

jacket at all times and read the text whenever he had a moment. One day the envelope was found by his friends, and no end of sneering and joking resulted. His friends thought of him as a dreamer. However, Killy persevered, was not discouraged and won many gold medals for France. He is considered one of the best ski players in the history of the sport. Of course, he had a certain amount of talent, but to this day he remains convinced that some of his old friends had much more talent than he had. Looking back, Killy says that the difference was the fact that he took the time to think about a goal, write it down and keep reading it over and over. The more he read it, the more he started to believe that he was not just able to do it but also that he was going to do it.

"Do not allow anybody to talk you out of your dreams. People who have no dreams will never see a dream come true." Jean-Claude Killy

Our success is determined by how big we think. As it happens, we will rarely exceed our goals.

The Magic of Thinking Big, David Schwartz – in the intro, an example is given about a salesman looking like the ordinary young man who sold five times as much as the average salesman. The only difference with the others, according to his manager, is that he was thinking five times bigger than anyone else.

We often overestimate what we can achieve short-term and underestimate what we can achieve long-term.

Success is a self-fulfilling prophecy.

"We are what we repeatedly do; excellence, then, is not an act, but a habit." Aristotle

According to the psychologist and philosopher William James, new habits can be formed by persevering for 30 days.

"Nothing can take the place of persistence."

Talent will not: nothing is more common than unsuccessful people with great talent.

Genius will not: unrewarded genius is almost proverbial.

Education will not: the world is full of educated derelicts.

Persistence and determination alone are omnipotent."

Jan-Willem Van Den Brandhof

Make mistakes: we learn a lot from them

When IBM founder Thomas Watson Sr was asked for the secret of his success, he answered: "double your failure rate".

"I cannot give you the formula for success, but I can give you the formula for failure: try to please everybody."
Herbert Bayard Swope

In order to make life exciting, and avoid saying “I wish I had”, we ought to take action right now and do the things we always wanted to do.

➔ Live now, make sure you have challenging plans and forge your life into a work of art.

It is very motivating to have challenging yet achievable goals, to set up subgoals/a set of intermediary goals, and to track one’s progression towards the achievement.

Goal visualisation

Create a dream situation (involving as many senses as possible) and allow this to live in the creative subconscious by means of projection (visualisation + other senses). Creating dream images stimulates the powers of imagination, and vice versa. This creates passion and desire, which lead to high expectations. The keys to proper use of our capacities are in our powers of imagination, our passion and our expectations.

The following formula outlines this process: $R \times I \times C \times E$

R= realism: one must believe in the projection

I=imagination

C=clarity

E=emotion, evoked during visualisation or affirmation

Examples:

The inventor Nikola Tesla wrote: “It is absolutely immaterial to me whether I run my turbine in thought or test it in my shop.”

Einstein predominantly thought in visual representations and feelings. He did not elaborate these into formulas until he had finished the creative brainwork.

Conrad Hilton visualised exactly what his hotel empire would look like, which in practice indeed eventuated.

Charles Garfield, who studied top performance in sport, describes how 60 to 90 % of the success of top sportspeople involves mental factors which can be controlled.

Some sports stars spend about 50% of their time on physical training and 50% on mental training, of which visualisation is an important part.

From <http://www.llewellyn.com/encyclopedia/article/244> :

Visualisation plays a key role in the successes of many great athletes. Most obviously, of course, visualisation increases confidence and motivation. Less obviously, it affects and sharpens players' muscles. This was discovered by physiologist Edmund Jacobson when he had subjects visualise certain athletic activities.

Through the use of sensitive detection instruments, he discovered subtle but very real movements in the muscles that corresponded to the movement the muscles would make if they were really performing the imagined activity.

Further research revealed that a person who consistently visualises a certain physical skill develops "muscle memory" which helps him when he physically engages in the activity. A related study by Australian psychologist Alan Richardson confirmed the reality of the phenomenon.

Richardson chose three groups of students at random. None had ever practiced visualisation. The first group practiced free throws every day for twentieth days. The second made free throws on the first day and the twentieth day, as did the third group. But members of the third group spent 20 minutes every day visualising free throws. If they "missed," they "practiced" getting the next shot right.

On the twentieth day Richardson measured the percentage of improvement in each group. The group that practiced daily improved 24 percent. The second group, unsurprisingly, improved not at all. The third group, which had physically practiced no more than the second, did twenty-three percent better—almost as well as the first group!

In his paper on the experiment, published in Research Quarterly, Richardson wrote that the most effective visualisation occurs when the visualiser feels and sees what he is doing. In other words, the visualisers in the basketball experiment "felt" the ball in their hands and "heard" it bounce, in addition to "seeing" it go through the hoop.

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F. No stress

Stress is the main reason for us to use just a small part of our brain capacity → need to relax, think of nothing (the more you do as part of your responsibilities, the more essential relaxing is)

Stress leads to damage in the brain and impedes the production of new cells in the hippocampus (the only part of the brain where new cells are produced)

Stress also impedes blood circulation in the brain, preventing a good cooperation between left and right hemispheres.

“Worrying is an abuse of our imaginative power.” Jan-Willem Van Den Brandhof

In a stressful situation (e.g. before a presentation), focus on your breathing, and keep it steady and deep. Relax your muscles.

About ¼ of all the energy needed by our body is used for feeding the brain; 30 to 40% of the oxygen we breathe goes to the brain. In your daily life, favour deep breathing (breathe in for 4 seconds, hold your breath for 4 seconds, breathe out for 4 seconds). Oxygen from pure, fresh air is important. It is advised to sleep with the window open.

Relaxing and breathing properly also improves the operating of the brain-heart system (the 2 are in constant interaction), which for example reduces blood pressure and dramatically increases the production of rejuvenating hormone DHEA.

Buddhist monks use a breathing exercise to become more energised and cure their bodies of illnesses. They say to themselves “I am breathing in now” as they breathe in, and say “I am letting go now” when breathing out. It is a good idea to visualise that each breath pulls energy into us, for example before you go to sleep, as it will evacuate the day’s stress.

Make sure you get enough sleep.

We have two clocks in our brains; one of them adjusted to the orbit of the earth around the sun (that is, 24 hours), and the other a biological clock with a cycle of 26 to 28 hours. Because of the sun, we tend to function according to our 24-hour clocks and our brains are in balance with the time around us. In the dark, the biological clock takes over. People who spend a long time in dark caves will feel as if they are functioning according to a 26 to 28-hour day. Foetuses also live according to this biological clock.

Jet lag means that these two clocks are no longer running in sync. In some airports, such as Narita in Japan, you have the opportunity to reset both clocks by taking baths of light, which remedies the jetlag.

The sun plays a very important role in our day and night rhythm as well as our moods; when we feel depressed for example, it is a good idea to expose ourselves to the sun.

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“Until one is committed there is hesitancy, a chance to draw back; ineffectiveness concerning all facts of initiative and creation. There is one elementary proof – the ignorance which kills countless ideas and splendid plans. But the moment one definitely commits oneself, providence moves too. All sorts of things occur to help one, that would never otherwise have occurred. A whole stream of events issues from the decision, raising in one’s favour all manner of unforeseen incidents and material assistance, which no man could have dreamed would have come his way. Whatever you can do, or dream you can do, begin it. Boldness has genius, power and magic in it. Begin it now.”

Johann Wolfgang von Goethe