EYE CREATE

THE NEURO SCIENCE OF PERSONAL INNOVATION

The Book

Gregory Berns; Iconoclast: A neuroscientist reveals how to think differently

Speed RAP

What makes true innovators so creative, so successful - and so rare? What makes them tick? And how can we learn to be a little more like them? In ***Iconoclast***, Berns answers these timeless questions with surprising insights into the human brain. He suggests three roadblocks prevent us from being true innovators: our perception, overcoming our fears and our social intelligence.

The Big Idea

Your plastic brain! Through real-time mapping of living people, neuroscientists are working out how we really think. And, their insights into human behaviour are changing your future.

Your Challenge

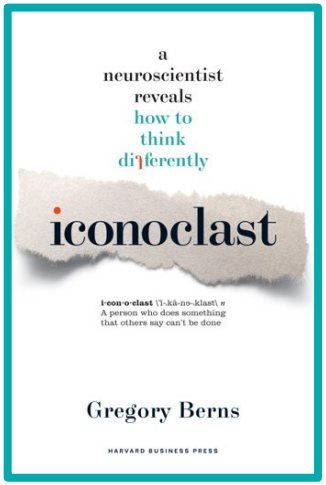
It's time to create something 'neu'! Check your roadblocks. Create a plan. Change your world.

RESOURCES : anything you use to generate wealth.
ACTIONS : an act of will, a deed completed.
PROFITS : to gain an advantage or benefit.

Contents : Eye Create

BR Review : Iconoclast

Gregory Berns; Iconoclast: A neuroscientist reveals how to think differently; Harvard Business Press; Boston, 2008.



PRÉCIS

To view the world of innovation through our brain function. That's the premise of ***Iconoclasts***.

Some of the connections are less than obvious. How to think differently... yep, I accept that happens in the brain. How to manage our fears... yep, I can get that happens in the brain too. But, our social intelligence and selling our ideas... I'm not convinced.

Sure, everything we do requires some brain functioning - otherwise we'd be dead. Or, at least brain dead. In this case, I think the link is tenuous.

Read ***Iconoclasts*** to make up your own mind.

FEATURES

A range of Case Studies including Richard Feynman, Computer Associates, Dixie Chicks and spaceflights for you and me.

Includes an appendix looking at the impact of drugs on your brain.

BENEFITS

Update your brain by reading about it. Easy-to-read neuroscience.

WHOS IT'S FOR

It's for scaredy cats willing to confront their lack of creativity. If you're not creative you'll probably find the brain-related source in this book.

GREGORY BERNS

Gregory Berns is a guitar playing Medical Doctor who is the Distinguished Chair of Neuroeconomics at Emory University.

Greg is also a professor in the departments of Psychiatry and Economics, and at the Gouzueta Business School.

His earlier book, ***Satisfaction: The Science of Finding True Fulfillment*** was published by Henry Holt & Co in 2005.

Greg speaks regularly to popular audiences outside the academic world.

RECOMMENDATION

BOOK RAPPER THINKS...

Iconoclasts is not a self-help book - It's a bit light on for actions for that. Surprisingly, it's published by Harvard Business School. It's not really a business book either.

It is a science book filled with interesting case studies and easily understood explanations.

Read it for the neuroscience - we skimmed over a lot of it in this RAP. Instead we focussed on the actions you can implement.

RAP1: Your Lazy Brain

PROFIT: In the world of mind-body connection, studying the brain shows us the origins of our behaviour. The relatively new field of Neuro-economics explores how our brains make decisions – using our limited resources to best effect. Ultimately, our brains are lazy they do their job with the least possible effort.

NEUROECONOMICS?

Traditional views suggested there was a single pleasure centre in our brains that governed all our behaviour. Think Freud and the Id.

Instead, new research is showing a complex cocktail of chemicals firing specific neurons in specific parts of the brain. This new field of study is called ***neuroeconomics.***

It's based upon the idea that the physical workings of the brain limit the way we make decisions. And, therefore they limit human behaviour.

Through mapping our brains we can now literally see why some people act in one way, whilst others respond differently. Modelling excellence has switched from observing external behaviour to mapping the inner workings of our brain.

LIMITED RESOURCES

Our brains are like a V8 car engine they consume enormous amounts of energy. Given there are fuel limits, the brain works to get the job done as quickly as possible in the least amount of time using the least amount of energy. Time is energy.

For the sake of efficiency, the brain takes shortcuts. In most cases, these shortcuts are effective most of the time. And, sometimes they limit us. In particular, they cost us when it comes to creative thinking.

ICONOCLAST

ICONOCLAST

DEFINITIONS

Economics is the study of how we use scarce resources. It generally focuses on the production and consumption of goods and services.

Neuro refers to our nervous system, which regulates and controls our bodies. It's primarily driven by the brain and presumes a mind-body connection.

Neuro Science aims to explain human behaviour through the activities of the brain. Neuroeconomics is one specific part of this overall study of our brains.

WHO'S AN ICONOCLAST?

An iconoclast is literally a destroyer of icons.

It originates from Leo III, emperor of Constantinople who destroyed the golden icon of Christ on the palace gates way back in AD725. A literal creative destruction!

Bern defines an Iconoclast as *someone who does something that others say cannot be done*.

They're innovators of the highest order.

This implies an iconoclast is not like most people. And, from the neuroscience viewpoint this is because their brain is different.

RAP2: Three Roadblocks

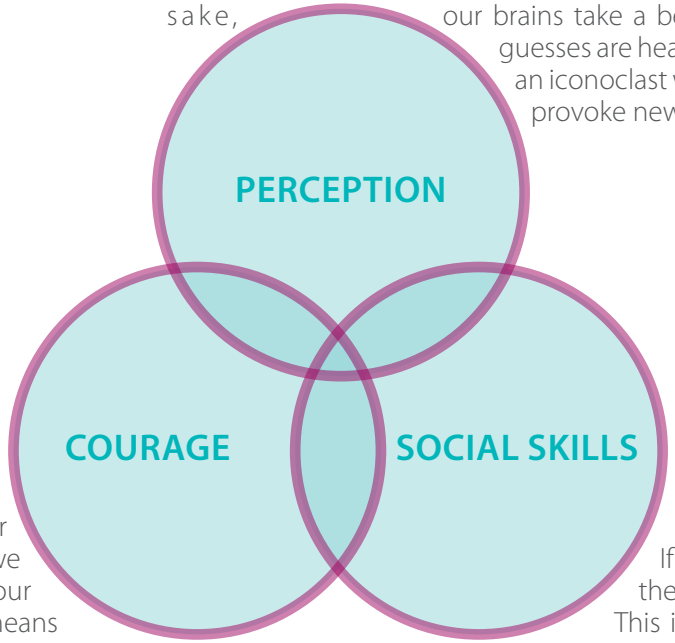
PROFIT: Are you creative? A true innovator? What's stopping you from reaching your creative nirvana is the way you think. Neuroscience shows us how to short-circuit the natural processes of the brain to become an Iconoclast or true Innovator.

ICONOCLAST BIOLOGY

Three factors limit our Iconoclastic thinking: flawed perception; fear of failure; and the inability to persuade others. These three factors are the domain of the iconoclast. And, each of these three functions reflects different circuits in the brain. Thus the Iconoclast's brain is different.

PERCEPTION: SEE THE WORLD DIFFERENTLY

To do things differently starts with seeing the world in a different way. And, iconoclasts see it differently to others. They were either born this way or have learnt how to do it repeatedly. Our perception is learnt through experience. It's not simply the sum of data collected by our eyes, ears and other senses. Perception is a product of the brain. The sensory data that reaches our brain can be interpreted in multiple ways. For efficiency sake, our brains take a best guess at what is happening. And, these guesses are heavily influenced by previous encounters. To be an iconoclast we need to step outside of these guesses and provoke new interpretations as to what is happening.



COURAGE: CONQUER YOUR FEAR

When we see things for the first time, this alerts the fear response in most people. Is it safe? Should I run? Whilst we no longer live in the jungle surrounded by wild animals, our survival mechanism is hard wired into our brains. This means our fear response is hard wired also. Several types of fear, including fear of uncertainty, fear of failure, fear of social exclusion and fear of the unknown, restrict most people from becoming an iconoclast. To be able to do something that others say cannot be done requires one to confront and conquer your fear.

SOCIAL SKILLS: ENROL OTHERS

If the seed of an idea is through thinking differently, then the success of an idea relies on selling it to other people. This is where the innovator must bridge the gap to other non-iconoclasts. Recent neuroscience experiments suggest that social intelligence is reflected in very specific parts of the brain. Whilst the perception to develop an idea means going against what most people think, to sell an idea requires an opposite viewpoint. We want others to see the idea as being familiar and similar to what they already know. To be an iconoclast we want others to see the world as we do.

RAP3: How to See Things Differently

PROFIT: To attempt to complete things that others do not believe are possible requires a different way of looking at the world. The key to this is managing our perception and overcoming the inherent shortcuts taken by our lazy brains. We can do this by looking with fresh eyes and creating new categories for our perceptual sorting.

HOW WE SEE

We are visual animals and seeing is central to our experience of the world.

Yet vision is not the same as perception.

Vision is the process of collecting light through the eye. Perception is making sense of that light. It's a brain function.

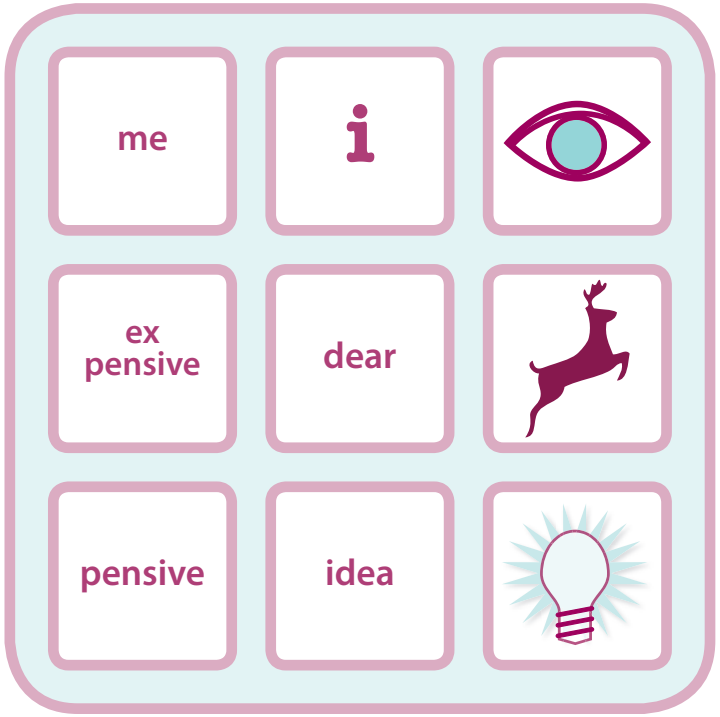
The eye works through constantly scanning our environment. The brain collects this info and builds a mental image of our world.

To shortcut thinking time, the brain doesn't compute all the information it receives. Instead, it predicts what it expects to see. In some cases, it may leave out bits of information. The brain only changes these predictions when an error occurs.

For instance, human beings have a physical blind spot where the optic nerve connects to the retina. We cannot see in that section of our eye. Yet, we don't experience a hole in our vision. The brain fills in the gaps.

The most likely way we perceive something is consistent with our past experience. It takes less energy this way. If we had to double-check everything we saw we'd never get anything done.

The key to being an iconoclast is to look at things as if you have never seen them before.



HOW WE CATEGORIZE

One of the shortcuts our brain uses is a category.

When we spot a new car, we match the features of our category with the object in front of us.

This image and label are then learnt so next time we see a similar car with similar features we can use the same category. It's quick, it's efficient and sometimes we get it wrong.

If items are too similar we may not notice the difference. You've probably had one of your brilliant ideas dismissed with the immortal words, 'Forget it! It's just like…' That's our brain playing shortcuts. It's a great way to kill off innovation.

What we need is something unfamiliar enough to force the brain to put aside its usual perceptual categories and create a new one.

ACTIONS: HOW TO SEE DIFFERENTLY

Change Environments : Travelling to a foreign country heightens our awareness of even the little things in life. The things we take for granted may no longer be so.

Meet new people : If each of us sees the world differently, it pays to hang out with new and different people – as long as we're willing to consider their viewpoints.

Do things differently : Changing your method changes your perception of the task. For instance, use chopsticks instead of a knife and fork.

How to Imagine New Possibilities

PROFIT: Our imagination is crucial for generating fresh ideas. And, it uses the same brain circuits as our vision – except in reverse. Therefore, the same lessons for seeing the world differently can be applied to imagining a new world filled with creative alternatives.

STEP OUTSIDE

To step outside conventional thinking we must first consider that it is not the only way. An iconoclast is able to see things not for what they are, but for what else they could be.

The key to this is to step outside traditional categorization.

The latest theory on perception suggests we interpret ambiguous visual signals with the 'most likely' explanation. And, this means it's most likely to be based upon things we've seen before.

One example of this is Ponzo's Illusion (right). Which horizontal line is longer?

We expect the upper line to be longer because we expect that when lines converge they are further away. Just like the proverbial railway tracks. Thus the top line is perceived as being bigger than the one below because it is perceived as being further away.

If you turn the image upside down, the illusion vanishes.

Consequently, we have two major factors to overcome to imagine new possibilities. The first is our selection and creation of categories and the second is to change our perception through new experiences.

It's only when we confront our brain with stuff it hasn't seen before that it will reorganize perception.

ACTIONS

Restructure your Idea : Reorganize your perception by presenting your information in a new configuration. For instance, graphs versus numbers, 3D instead of 2D, or end result to process.

Avoid Repetition : When we present the same idea in the same way we become numb to its nuances. By presenting it in novel ways you give yourself the chance to experience it in fresh ways.

Visualize in Detail : Whilst it takes a lot of mental energy to visualize something in detail, computer imagery can fill the gap for you. Create a visual model of your idea with as much detail as possible. Adding the detail adds to and refines the idea.

Sharpen Your Attention : Familiar things dull our attention. Create a novel stimulus and sharpen your attention by combining new things. New combinations force us to re-look at how things work.

Collect New Experiences : Bombard your brain with novelty. Do new things, do old things in new ways, go to new places. Ideally, seek out environments in which you have no experience at all.

Use Analogies : Step out of categories by confronting them. Document your current categories then invent new ones by using analogies and metaphors.

RAP4: How to Manage Your Fear

PROFIT: Fear is a basic survival mechanism that aims to keep us safe. It stops us taking any action the brain perceives as being potentially dangerous. In our modern lifestyles, our potential dangers are more likely to be emotional than physical. Since fear can stop us from taking action, this could be what's stopping you from becoming an iconoclast.

THE FEAR RESPONSE

The fear response is a stressful one. Whilst the triggers may be different, the stress response is the same for all of us.

The heart starts pumping, blood pressure starts rising, we sweat, get a dry mouth, our fingers might shake and our stomach might tie itself in a knot. Not ideal for being creative.

Whilst tigers no longer cause our stress, our social interactions do.

And, repeated stressors can remodel the part of the brain that controls decision-making. And, ultimately iconclastic thinking.

TAMING THE AMYGDALA

Whilst the three common fears are different in origin and makeup they are all linked to the amygdala.

It's the part of the brain that is the gateway for managing fear and it triggers the autonomic nervous system into action.

There are two distinct ways to tame the amygdala.

1 LIMIT EXPOSURE

The first way to tame the amygdala is proactive and aims to prevent or limit the association the brain makes to unpleasant events.

For instance, one of the major fears that prevents people from forwarding their ideas is 'the fear of rejection'.

This comes from expectations around social pressure. One way around this is the ***Idea Market*** (see page 13) – a situation that minimizes social influence.

Action : Identify your fear. Then, design a way to prevent it from happening or limit your exposure to it. In other words, seek another way to get the same result.

2 REFRAME

The second way to tame the amygdala is reactive and allows you to tolerate the unpleasantness without paralysis.

If we can rationalize things through the frontal cortex we can avoid the amygdala getting involved. This will minimize the stress response.

For instance, reframing a potential stressor. This is particularly useful for a fear of the unknown. Simply reappraise ambiguity by framing it as a need for more information.

Action : All stress is an opportunity for reappraisal. To practice, start with a mentor or coach in the cool light of day rather than in the heat of battle.

THREE COMMON FEARS

Fear of the Unknown
This is a fear of ambiguity or uncertainty. It stems from a lack of knowledge. The brain is designed to predict what's going to happen. When it can't it becomes unsettled.

Fear of Failure : When overblown we can do almost anything to succeed, sometimes overstepping the line between what's good sense and even what's legal.

Fear of Public Ridicule
When we perceive a threat of becoming a social outcast, or even death itself, the natural response is to pull back or hide.

How Fear Distorts Perception

PROFIT : Fear is like alcohol. It impairs our judgement when we're under its influence. The pull to be part of a group often sways our perception. We give up on our thoughts to satisfy our need for belonging. Iconoclasts find ways to avert their fear to hold the clarity of their perception.

SOCIAL INFLUENCE

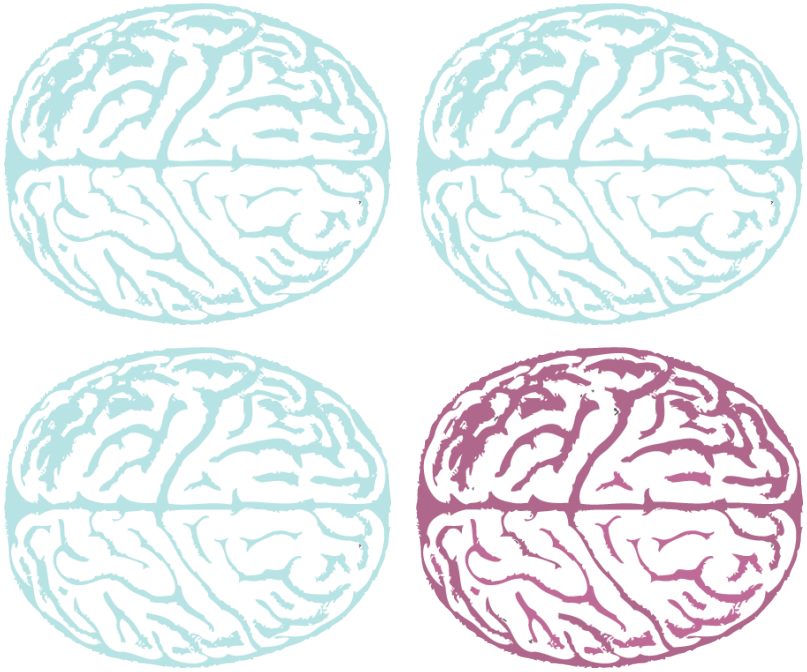
Research shows that the fear of social isolation changes our perception. In the brains of the iconoclast they overcome their fear and do it anyway.

In leading the fight against racism Martin Luther King realized the real battle was within his own followers.

King chose the path of non-violence to overcome the fear within his own brigade.

He suggested their freedom had to be claimed. And, it would only be claimed if they were no longer afraid and cowed.

Trading blows with their opponents would simply have shifted the fear from one side to the other. And, they'd probably still be fighting!



Research shows that group pressure will sway an individual to give the wrong answer.

Most people will discount their perception to go along with the group to avoid the fear of social isolation.

Being the odd one out may be normal for an iconoclast, but not for the rest of us. Historically, being part of the group gave you a better chance of survival.

Statistically, the wisdom of the crowd is right more often than any one individual.

It's usually advantageous to be in a group as there is safety in numbers.

This explains why so few people end up being true iconoclasts. The gravitational pull of conformity is too strong for most people.

This is reinforced by the idea discussed earlier that perception is comprised of the 'most likely' explanation. The 'most likely' is what most of the people are likely to agree to. Social proof is truth.

In MRI scans, neuroscientists have been able to separate the point between perception and judgement.

When we make judgements we might see one thing but explain it as if we saw something else. We might think our eyes are playing tricks on us, but its' really the pull of the crowd at work.

The brain will incorporate the social proof of others into our calculations whether we like it or not.

Groupthink is the bane of the iconoclast. The real challenge is to have the courage to over come your fear and stand your ground.

Actions : Manage Your Fear

Tap into your beliefs
If something is truly important enough you'll find a way to overcome your fear. This reframes the fear by putting into a different context.

Reframing Fear of Failure : Fear of failure is the fear of risk. It potentially permeates all activity. The key is to reframe fear as a warning sign, not as a guide for action or inaction. Once the fear is recognized it can be deconstructed and reappraised. For instance, the Fear of Failure could be reframed as the opportunity to 'learn from one's mistakes'.

Isolation Doesn't Work : It may be better to isolate yourself than stand alone in a crowd. But, all this does is delay the inevitable confrontation. The best strategy is to find a single like minded soul to break the stranglehold of conformity.

Effective Decisions : Committees should encourage dissension. Having to agree undermines innovation because social influence has such a powerful impact. Closed votes work better. Also, instead of black/white, yes/no voting, rate an idea on a scale of 0-10. This will incorporate the weight of opinion proportionally. Before you begin, ensure your committee are filled with diverse minds as Groupthink can be deadly.

Join a Group : There's safety in numbers so if you have a fear, confront it together.

Use the Force : Repeated exposure dulls the fear. Forcing yourself to voice your opinion may be uncomfortable in the beginning. And, it will become easier over time through practice and repetition.

Transform your Emotion : Turn your fear into something else! Fear can easily become anger or pride and these can motivate one forward. Reframe what is happening into something productive. For instance, being scared of speaking in public may be seen as a challenge to be accepted not one to be avoided.

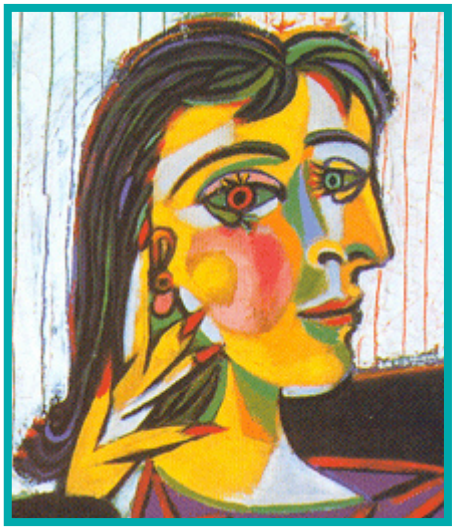
Deconstruct it : Break the fear down into its component parts to eliminate some elements. Recognize the fear in the first place – avoid judgements whilst under the influence of fear.

Dominant Personality
If you don't mind being seen as aloof and antisocial you can grow a tough skin and bear the brunt of isolation.

RAP5 : How to Sell Your Ideas

PROFIT : An iconoclast needs to be able to connect with other people to share their view of the world. The goal is to keep people's amygdala from firing. To achieve this build a network through familiarity and a positive reputation.

Vincent Van Gogh and Pablo Picasso were both iconoclast artists. Yet, one died penniless, the other left a $750 million estate.



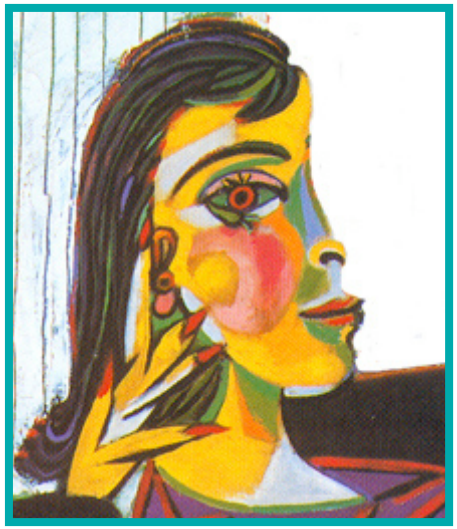
Van Gogh sold only one painting during his lifetime. This reflected his lack of social network.

In contrast, Picasso was one of the first celebrity artists. He knew lots of well-connected people and he was known by even more worldwide.

By definition an iconoclast will begin their journey alone. And, to be successful they must build a community of others sharing their point of view. Or, at the least, have someone build this community for him or her.

In building your network there are two levels to consider. Firstly the people you know directly. Secondly, your shadow network. This is the people who your network knows. This is important because it's a way for you to fulfil your goals by reaching and influencing the right people.

Two key aspects of social intelligence and building a network can be explained through brain function: familiarity and reputation.



FAMILIARITY

Familiarity is hard wired into the brain. This is another survival mechanism. We want to know when to feel safe and relaxed; and when to be on alert for potential dangers.

Name and face recognition are vital.

When we meet a stranger we want to be able to determine if we can trust that person or not. Should I approach them or run away?

When we recognize a friend or family member, their face triggers memories from previous encounters.

In both cases, the amygdala plays the role of gatekeeper of our social behaviour. It helps decide our emotional response to the person we are meeting. And, this colours our judgement too.

The human brain likes what is familiar. And, being familiar increases the chances that people will like something. It's because it makes them feel comfortable. It's also less effort for our lazy brain.

Being familiar is not necessarily better. It's simply that unfamiliar things tend to be alarming and potentially dangerous. Familiarity quietens the amygdala.

Images : From Pablo Picasso, Portrait of Dora Maar Seated (1937).
Adaptation by Geoff McDonald, "Understanding Cubism", http://www.designprobe.com/art-research/dora-maar.html

How to Sell Your Ideas, continued

REPUTATION

Whilst your specific reputation may be fluid, a key aspect of it is hard wired into our biology. The ability to assess and respond to trust, fairness and reciprocity can be mapped to a specific part of our plastic brain.

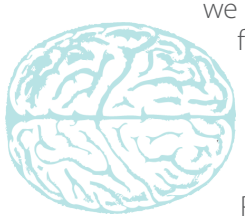
From a Darwinian perspective, this is crucial for survival. This specifically relates to finding food and finding a mate.

We have a better chance for thriving by cooperating and being fair to each other.

It's important to make decisions that are equitable; to find that balance between self-interest and fairness; between short-term grab and long-term gain.

If I perceive you not to be fair in our dealings today, I am unlikely to trust you in future dealings. This is the basic building block for our reputations.

One aspect of this is reciprocity. There is a greater chance an individual will attempt to rip you off if they believe they will not meet you again in the future. In contrast, if we expect to cross paths again, we are more likely to replicate today's fairness in tomorrow's dealings.

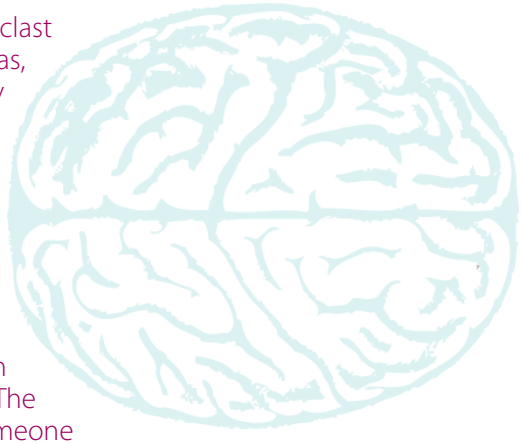


Research studies and brain mapping also demonstrate that punishment is a necessary and desirable feature of a community.

Punishment is a filter for future deception. By forcing us to think of the consequences of our actions today, it provides a glue to reinforce ongoing cooperation.

If 'your reputation precedes you' in a positive way, this will help you spread your ideas and be a true innovator.

ACTIONS



Recruit a Connector : Whilst an iconoclast needs to be able to sell their ideas, they don't need to have this ability themselves. They can recruit a connector to spread the word for them.

Be Prolific : Being highly productive creates omnipresence. It means others are more likely to run into your work. The more familiar someone becomes to your work, the more familiar they will become to you.

Be Distinctive : Be different so that people are drawn to you. Physically, mentally and word-ly.

Create Connections : Ray Kroc wanted families in his restaurants. He borrowed from Disney's Mickey Mouse and created Ronald McDonald to connect to children. Every loves a clown! He created a kid-friendly connector that drew families to his restaurants.

Use Metaphors : Describe your new thing like something people already know. For example, Facebook started out as an online class directory.

Fairness Strategy : Act as if you will meet the person again in the future. And, presume the other person will remember how you behaved. Play the long-term game rather than the short-term grab.

Actions : What's Your Roadblock?

PROFIT : Do you want to be an Iconoclast? Then what's stopping you? Find the answer in this quick quiz. Rate yourself from 1-5. Notice your roadblocks and put a plan in place to overcome them.

	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
I want to be an iconoclast. I want to create something new and original.	1	2	3	4	5
I am able see the world differently and regularly put myself in situations to see the world afresh.	1	2	3	4	5
I am able to imagine new possibilities.	1	2	3	4	5
I'm not a control freak. I can be with the unknown, ambiguity and uncertainty.	1	2	3	4	5
I'm willing to take a risk and face the possibility that I might fail.	1	2	3	4	5
I'm willing to stand up for what I believe in and voice my opinion even when it might be different from those around me.	1	2	3	4	5
I'm willing and able to sell my ideas to others.	1	2	3	4	5
I act with fairness and respect in my dealings with other people.	1	2	3	4	5
I'm comfortable building a network of people I know.	1	2	3	4	5
I'm comfortable using my network to contact people who may be able to help me move forward.	1	2	3	4	5

THE IDEA MARKET

One of the great killers of innovation programs is social influence. People become reluctant to put forward their ideas out of the fear of social rejection.

The Idea Market is one way to generate ideas and minimize the impact of peer group pressure.

It's based upon a stock-market type game.

Each participant is given $10,000 'Opinion' money. Participants list ideas on the company intranet. If you like the idea you can 'invest' in it by adding some of your 'opinion dollars' to support it.

The investment grows at the next level of support when people start adding criticisms and comments. The more comments, the more 'interest' the idea builds. Interest money counts for twice as much as opinion money.

Finally, to realize a profit, employees must work on the idea to turn it into a reality. This can be as simple as offering a couple of hours of your time.

The biggest value of the Idea Market is that everyone in the organization can see what others are working on. This transparency builds trust and further enhances the innovation culture.

Source : Rite-Solutions, a software company based in Newport, Rhode Island.

BR Context: The Future of Your Brain

EXPLORING & EXPLOITING

The golden age of discovery was in the 15th century as explorers boarded their ships to discover the rest of the world.

Once discovered, the next task was to exploit the riches found. Thus, the great era of Colonisation. The Spanish in South America, the British in India and the French in Africa were all seeking wealth for their homelands.

Now that the four corners of the earth have been reached and exploited, it's time for a new exploration race.

NASA is taking one path outside our planet, to infinity and beyond!

Neuroscientists, like Greg Berns, are exploring another area, our internal grey matter.

The current work of neuroscientists is mapping the future of our brain.

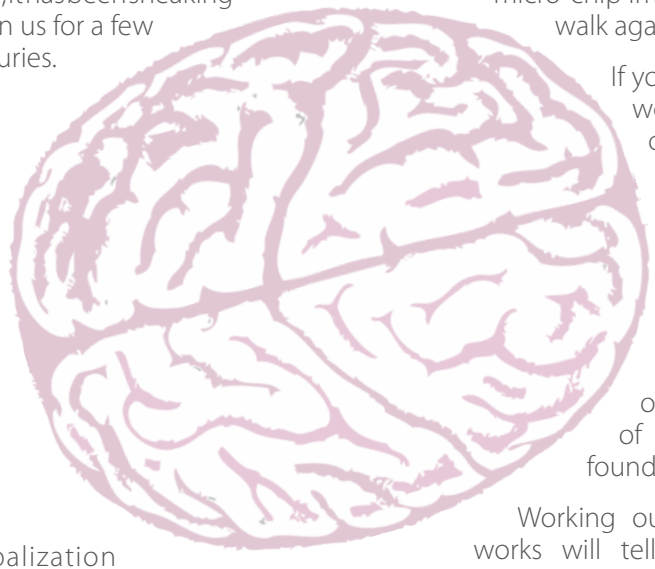
By uncovering how our brains really work, in living people in real-time, they are laying the foundation for the future.

TRANSHUMANISM

Do you have fillings in your teeth? Do you wear glasses? Have you taken drugs for an extended illness?

These are early examples of Transhumanism. It's where human beings use external technology to assist with internal bodily function.

Transhumanism is like Globalization. Whilst we presume it is a contemporary issue, it has been sneaking up on us for a few centuries.



Globalization is at least as old as Marco Polo's trek from Venice to China way back in the 13th century.

Transhumanism may have begun even earlier. The Egyptians first used prothesis for missing teeth, toes and limbs a couple of millennium ago.

In recent years, electronic technology, biotechnology and nanotechnology has accelerated progress to new levels.

The next great era of Transhumanism is our brains. Or, more accurately, our nervous or neural systems.

If you were paralysed would you get a micro-chip implanted to enable you to walk again?

If your mother had dementia would you put a micro-chip in her brain?

If you were suffering from Parkinson's Disease would you let doctors insert stem cells into your body?

Whether we agree with it or not, the neuroscientists of today are laying the foundation for a new brain.

Working out how our brain really works will tell us how to train our thoughts, use electronic supplements and design a diet of useful drugs.

TRAINING YOUR BRAIN

All parents want the best for their children. One approach to giving them a cognitive boost is to listen to Mozart's music. A million dollar industry has been built around the *Mozart Effect*.

Yet it appears to be a myth. The idea that we can train our brain is correct, in this case the application is not.

Neuroscience has shown our brains are plastic. This means they grow and change over time, just like your waistline.

As a gym junkie will attest, it's possible to change your body shape through continued and deliberate training.

It's looking more likely that we will learn how to train our brains in a similar way in the near future.

Are you willing to train your brain in the same way that Arnie trained his body?

EATING FOR YOUR BRAIN

What we already eat changes our brains.

For instance, Omega 3 fatty acids are known to support brain function, eating chocolate releases natural opiates and alcohol acts as a depressant.

Repeated use has a repeated effect on our brain structure.

Manufactured foods and drugs are currently quite distinct.

Yet future manmade food may go beyond merely feeding our bodies. Instead, we might be eating to feed specific brain functions.

Most of our current food is packaged based upon what it is made from. For instance, Corn Flakes.

Our future food may be packaged based upon what they can do for us.

BR Context: The Future of Your Brain, continued

Would you eat, 'Calming Chocolate', 'Eggs Energetic' or 'Sexy Sausage'?

If antidepressants are useful for extreme cases of depression, then why not a cocktail of drugs for the rest of us who also want to enjoy life to the max?

We know we have the drugs to produce the effects we want. We simply need to knock out their unwanted side effects.

Who knows your level of Emotional Intelligence may be decided by what you eat for breakfast.

BRAIN MACHINES

Currently our thoughts are supplemented and complemented by external brains in the form of diaries, laptops, the internet and Google.

They're all mind-enhancers!

They enable us to remember things that otherwise we'd forget or know things we wouldn't otherwise know.

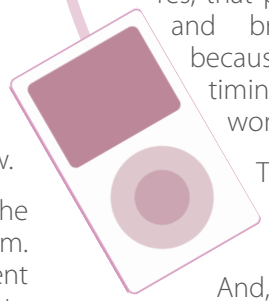
Schoolteachers used to be the smartest person in the classroom. Today a quick thinking student easily surpasses them with access to Google.

If we consider that carrying our iPhone or Blackberry is carrying our external brain, it's a small step to imagine an implanted one.

With nano-bots roaming through our bodies, our implanted brain can have it's own personal army to fight those free radicals and to keep order.

The future of the brain is only part biological. And, this raises another possibility for the future: the proverbial thinking machine.

SINGULARITY



Technologists have suggested that computers will be able to think like human beings within the next 20-30 years.

Yes, that promise has been made and broken before. Simply because we didn't get the timing right doesn't mean it won't happen.

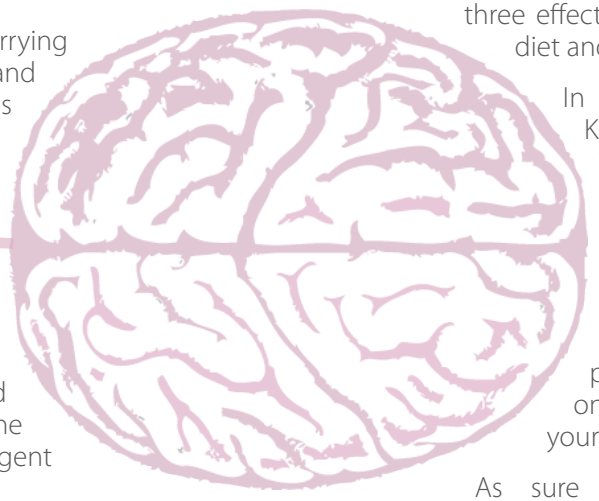
The *Age of Singularity* as it is termed, is just over the horizon.

And, here's the simple steps to making it happen...

First, our current neuroscientists are figuring out how our brain really works by imaging real-time brain function and human action.

Second, we can apply that in new ways by marrying technology with our natural brains.

Third, in marrying hard and soft brains we'll work out how to build the best of both worlds and create the most intelligent brain of all.



Whilst social networking and social media is the new fuel for making connections with your species, the best is yet to come.

Imagine being connected through your neural net... Your brain - part biology and part technology - syncing with another human being as easily as a USB drive.

Talk about connection! Social connection might be a mere starting point for the ways that we'll be connected in the future. And, that is one future of your brain.

THE MATRIX EFFECT

What would happen if we combined all three effects together: training, diet and machines?

In The Matrix (1999), Keanu Reeves as 'Neo' is plugged into a machine and learns a lifetime of martial arts in a matter of minutes.

The signs are pointing to this being one possible future for your brain.

As sure as Harry Potter's Invisibility Cloak is slowly emerging from laboratories, your new brain is being invented too.

Note : In the Appendix of *Iconoclast*, Berns outlines current drug use and their impact on brain function.

More info...

ABOUT THE AUTHOR

Hi folks!

Thanks for reading Book Rapper.

I think we've all got our own special genius. Mine is to take a whole bunch of information and distil it into some simple yet co-ordinated pattern. I used to be an architect. And, for me, tracking trends and working out how they fit together is just like designing a building.

Cheers,

Geoff (McDonald)

EMAIL ME...

Share your results, feedback, thoughts, questions, suggestions, etc. And, naturally, email if you want help designing your personal implementation.

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Delivery : This can be delivered in a variety of ways depending upon what you need. This might be one-on-one coaching or mentoring, or group events such as keynote presentations, facilitating strategic planning meetings or creating projects to achieve specific outcomes.

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