

# The Neurobiology of Coaching Motivation

By Robert I Holmes, Th.D

People watching is such fun, especially when someone's behaviour doesn't match their words. Have you ever been to a party and stood back to watch people? I do this all the time. Curiously, when I get the chance to share my observations with people, they often deny it. Their repeated turn of phrase 'is nothing'. Their closed body language is refuted with, "That isn't what I meant." People often behave in ways that seem at odds with their cognitive position or their perception of a situation. This 'at odds with self' phenomena is a great example of the ways motivation can cause a person to be in conflict with themselves, resulting in procrastination, indifference, double mindedness or conflicting body language.

Motivation is worthy of our attention. In the book "*Mastermind - how to think like Sherlock Holmes*", Maria Konnikova observes that motivation is one of those x-factors that affect everything positively. Motivation improves memory, concentration, brain receptivity, priming for learning and performance on any spectrum you'd like to measure. Understanding how motivation works will directly affect your success as a professional coach.

## The research

The study of motivation started with physiology. Zoologists and biologists investigated it by watching mice negotiate a maze for food and water. Behavioural scientists and psychologists came next. They studied the social and emotional behaviour of gorillas (in the mist) and primates. Neuroscientists joined the cause most recently. They examined the cognitive functions of the human brain with expensive equipment that enabled them to gaze inside people's skulls whilst they played card games, solved puzzles or looked at disturbing images.

Frederick Hertzberg was the first to apply motivational theory to a work setting in 1959. As coaches we are fortunate to have access to more than fifty years of organisational research on motivation that we can use in our practice.

One of the fundamental things this research has revealed is three basic systems that affect motivation: biological, emotional and cognitive. Neuroscientist Paul McLean described these three systems in "*A Triune Concept of the Brain and Behavior*". The brain has three layers which McLean called the reptilian (brain stem), mammalian (limbic system) and neomammalian (neocortex) systems. I prefer to call them the lizard, monkey and human brain.

Lizards, monkeys and humans are all motivated by different things and this helps to explain how those dinner party contradictions happen. The lizard layer might really enjoy the meal, but monkey feels socially isolated. Human brain might be perfectly happy with the entertainment, but

lizard wants to go home and rest. The competing desires of these three layers can be at odds because the individual layers of brain activity are pushing for different things. The lizard, monkey and human brain layers each have their own kinds of motivators (there are seven in all). As coaches, we can use our understanding of these motivators to assist our clients to get all three layers of brain working in the same direction.

## **Motivation types**

### *Layer one: lead the lizard with pleasure and pain*

The first or biological layer (the brain stem) is the Lizard brain. It governs physiology: motor control, action selection, immediate fear response, breathing and attraction. Think about motivating a reptile. Its basic biological brain is wired to move toward pleasure and away from pain: the rock is hot – get to shade... the berry is sweet – yum, eat it. Pleasure and pain are most useful for breaking physical addictions and changing bad habits, for example smoking or substance abuse. It is also useful for immediate behavioural change.

### EXAMPLE

People who are trying to lose weight often associate exercise with pain and fast food with pleasure. This is not serving them well – it makes for a fat lizard. Then along comes someone like Margie Cummins, (2012 winner of the *World's Biggest Loser*) and she manages to switch her motivational associations. By the end of the program exercise = pleasure and fast food = pain.

### FAILURE PROOF IT

#### Motivator 1 - Pleasure: make it visible

According to Lydia Zepeda & David Deal from the University of Wisconsin-Madison we work better when we can see our goal and can see the improvements. People who use food diaries (written or photographed) lose three times as much weight as those who don't.

#### Motivator 2 - Pain: threaten loss

According to Dan Ariely from Duke University, our lizard brains treat a dollar lost the same as two dollars gained (this is called loss aversion). Adding a small loss to goals – such as a fine paid to a friend when you fail to make the goal – can significantly improve motivation. See [www.stickk.com](http://www.stickk.com) for a great system to help.

### *Layer two: motivate the monkey with reward and punishment*

The second or emotional layer (the limbic system) is the Monkey brain. It governs social functions: memory, relationships, bonding and attachment, nervous response and it modulates our emotions. Think of motivating a mammal. The emotional brain chases reward (a carrot) and is dissuaded by punishment (a stick). This layer of the brain is motivated if it can predict the outcome: if there is a

cause/effect relationship. It works best for short term goals (monkeys don't have a great memory for past promises).

#### EXAMPLE

Think about most of the behaviour management systems in our community. Work hard and receive a bonus (a banana)... speed on the roads and receive a fine (a smack). These appeal to the emotional monkey brain.

#### FAILURE PROOF IT

Motivator 3 - Reward: measurement increases motivation

Jack Stack at Western Electric coined the term the 'Hawthorne Effect', after productivity in their Hawthorne manufacturing plant improved when they increased lighting, put new glass in the offices upstairs and lowered lights closer to the benches... the employees worked harder because they thought they were being observed and measured.

Motivator 4 - Punishment: make it a competition

The emotional brain is especially motivated by social comparison. Engaging in competition creates a tangible risk of public failure, and monkey brain hates that. Dailyburn.com has half a million users tracking health, exercise and weight. Those in peer challenges lose an average of 3kg more than those who enter individually.

*Layer three: human help with autonomy, mastery and purpose*

The third or cognitive layer (the neocortex) is the Human brain. It governs rational thinking: planning, prediction, pattern recognition, spirituality, belief and processing the five senses. Daniel Pink lays out the inner workings of motivating the human brain in his book "*Drive – the surprising truth about what motivates us*". According to Pink, our higher selves require:

- self direction (autonomy);
- self improvement (mastery); and
- transcendent reason (purpose).

Tasks which are complex or which require us to work unsupervised are best motivated when we can improve ourselves, direct our own tasks and serve something bigger than ourselves. It is very useful for medium to long term goals.

#### EXAMPLE

Put well paid, unmotivated people in a Results Only Work Place (ROWE) and they thrive. At Gore-Tex you can show up when you want or work from home so long as you get your work done. How you achieve that is up to you. People are motivated by having specific goals, projects and timeframes to finish them.

## FAILURE PROOF IT

### Motivator 5 - Self-improvement: do it five times

Finding a way to repeat your improvement just five times gives you access to a winning strategy. Nike+ have learned from 1.2 million users that once a person uploads five times, they are much more likely to continue because they get addicted to data about themselves.

### Motivator 6 - Self-direction: make the smallest change possible

Find a way for your client to direct their own course of action in the smallest possible steps (this is sometimes called life hacking). Queensland AFL trainer Roy Redman demonstrated this principle when he reduced the act of kicking to twenty coachable actions 'for perfect kicking results'. Roy says, "When you're in front of the ball – the kick is all that matters."

### Motivator 7 - Transcendent Purpose: find a why

If you don't have a reason, find one... figure out what the higher purpose is. Answer the "why" question first. Wikipedia is a free resource that is manned by highly technical experts who work for nothing. They do it because the purpose is clear and transcendent.

## Quick review

Every client has seven kinds of motivators that need to be lined up in the same direction and working together for them to make life letting improvements. They have:

- Biological motivators – pleasure and pain for making Lizard brain happy;
- Emotional motivators – reward and punishment for making Monkey brain happy; and
- Cognitive motivators – autonomy, mastery and purpose for making the Human brain happy.

Great coaches will assist their clients to identify and work on all seven motivators and failure proof each layer to achieve their goals and improve their lives!

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