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# Leadership is Situational, Is it Not?

David Chan and Mark Woodman

*Note to editor:* footnotes, endnotes and references have been omitted but some possibilities for adding detail have been marked with a \*. You decide and we can supply!

## 1 Making Leadership more Certain

Neuroscience, particularly the science of the brain, is revolutionising our understanding of what makes people tick – a common and necessary preoccupation of a CIO. CIOs in particular have this burden because they have to provide services and resources to their organizations in a way that matches a peculiar expectation: because of the way that the hard stuff they use is predictable in its behaviour, their organizations, and sometimes CIOs themselves, assume that all they do can be understood from a network of cause-and-effect relationships. This is wrong: what CIOs have a responsibility for must fit into a system of unpredictable people, error-prone approximations to people behaviour in software and (more-or-less) predictable behaviour of hardware. In such “socio-technical systems”, leaders are of enormous value as they help to maximize predictability and so minimize complexity.

Hence, the neuroscience of how leaders do what they do is relevant and potentially useful to CIOs, as is the neuroscience of the followers that make up the teams that deliver value to the organizations. But ... there is danger here: absolute certainty about the fragments of knowledge we are building about what parts of the brain do what, does not (yet) provide absolute certainty about behaviour of the whole leader or follower. All reports of brain activity responses to leadership-related activity are conditional: given a set of circumstances X we can see the brain get to work in areas A, B, and C, but when the circumstances are not X, but Y, what will happen?

The situation in which leadership takes place is our concern. We see individuals attain great achievements in one situation, only to be flummoxed by another. Within the context of how the brain works, we will explore aspects of situational leadership and argue that the skills needed vary from situation to situation. We then aim to focus on aspects of leadership, such as decision-making, and examine what of the emerging neuroscience relates to leadership within organizational situations and environments. Finally we will provide CIOs with ideas utilize the emergent scientific findings and awareness of situational challenges.

## 2 Situations and leadership

There is an implicit assumption in discussions of effectiveness. This assumption is that for an organization or team to be more productive, more efficient, more creative, more customer-focused and all-round better for business, it is the leadership that is the key ingredient – and that is an absolute truth, which means we can make absolute statements about leadership. **We cannot adhere to that assumption** as we see ubiquitous evidence that leadership depends on the situation in which it's needed. Leadership alone should not be seen as a panacea and the study of leadership should be a small, albeit, an important part of understanding how enterprises can be made more effective.

It should be self-evident that leadership is entirely situational. There are those who claim that they can identify leadership skills or develop leadership competencies through simple nostrums. We aim to show that leadership cannot be disentangled with the situation in which the potential leader operates. Effective leadership requires more than acquiring a bundle of “tricks” – whether guesses or well-founded in neuroscience. It requires much more than tricks from the would-be leader. (We do not want the new knowledge provided by neuroscience to be reduced to snake-oil tricks, but want it to interpreted in the context of situations in which leadership is utilized.)

Let's look at some dramatic examples of leaders in historic situations. Take Alexander the Great: he was known as a military genius (note the absolutism). His tactics at the battle of Gaugamela are studied by military theorists even today. The doctrine of Blitzkrieg in World War II and Schwarzkopf's successful execution of Desert Storm in the First Iraq War owes much to Alexander. Yet, today one would not adopt Alexander's leadership style of leading from the front and bonding through wild, drunken orgies in the modern military!

Successful qualities of a leader in one situation may result in failure in another. Take the example of Maoze Dong, the Chinese leader of the last century. His leadership and strategy was a key aspect of the Long March to escape the Nationalists. This led to victory the Chinese Civil War that established the People's Republic of China. But, his leadership two decades later resulted in the Red Guards and starvation of a large number of people in the Cultural Revolution in the Twentieth Century.

Fred Goodwin the CEO of Royal Bank of Scotland Group (RBS) was seen as a brilliant leader. He led the reverse takeover of the British NatWest Bank by the much smaller RBS and moved RBS from a bank in a small country (Scotland) to one of the largest banks in the world. He was knighted for his success in 2004 for his services to banking. Yet in 2007, his decision to undertake a hostile takeover of ABN Amro spent RBS's cash reserves and forced them to seek a bail-out from the UK Government when the Credit Crunch hit. He resigned at the turn of 2009 and was stripped of his knighthood in February 2012. The different situations may somehow not have been right for his leadership skills.

A rare occurrence is where people are successful leaders in one situation, then do less well or even fail in another and then "engineer" a situation where their leadership excels. Steve Jobs is possibly an extraordinary example, having succeeded with Apple initially, performed less well at NeXT, and then reached amazing heights with Pixar and the re-born Apple. Arguably, the practices of his leadership, which contradict most nostrums, prove the point about the situation mattering.

Studying Leadership in isolation is like studying history through analysing the characters of Monarchs or Presidents only. Without understanding the social and economic context, no thorough historical analysis can take place. This article will show that enterprises that are successful depends on more than just the qualities of its leaders and that environmental and contextual factors are probably more important. It will show how the ideas from neuroscience need to take into account the situational and environmental factors that CIOs face.

### 3 Some insights from neuroscience

Until recently, the dominant science for leadership was psychology: clever experiments exposed characteristics, practices and techniques that "good leaders" apparently have. Things like the ability to coach, to be a visionary, to frame change programmes, to control people.\* Now we have neuroscience exposing elements of the brain processes; these are also situation-dependent.

#### 3.1 Decision Making

Our corporate culture and practices are based on rationality and logical analysis. This is the implicit paradigm of our tools and techniques such as management by goals (MBO), corporate planning, performance management, investment appraisal, etc. Yet, when critical decisions have to be made, we are often confronted with incomplete information, misleading and often inconsistent facts, and, even imperfect foresight. Yet most organisations cope: they rely on leaders to make good decisions in the situations they are in.

Dr Sam Wang of Princeton University in his course *Neuroscience of Everyday Life* identifies 3 stages in decision making and describes the brain mechanism involved:

1. Collecting information
2. Making a choice
3. Taking action.

In making decisions, psychologists recognise a trade-off between accuracy based on completeness of information versus the speed of decision-making. At one extreme are the “maximizers” who demand the best outcomes and spend a lot of time worrying about small differences no matter how small. At the other extreme, there are the “satisficers” who accumulate evidence until they have a “good enough” solution. This was the only useful way of regarding situational leadership decisions until neuroscience exposed some of the mechanisms.

Neuroscientists studying decision making at the cellular level have found that the parietal cortex is the region that accumulates evidence. Groups of neurons work together to integrate information, accumulating evidence until some threshold is reached whereupon a decision is made. This threshold differs between individuals and perhaps reflects where the individual is located on the maximizer to satisficer spectrum – both in “normal” situations and in acute, often high-risk situations.

By monitoring brain activities in specific areas of the brain, neuroscientists have also demonstrated choices can be made before the individual is consciously aware of the decision! For example, Jonah Lehrer in his book “The Decisive Moment” describes the decision made by Lt. Cmdr. Michael Riley on board the HMS Gloucester stationed as a radar picket protecting the Coalition fleet in the first Iraq war. His radar detected an object flying towards the USS Missouri. It could have been an anti-ship missile or a returning American aircraft. He had just seconds to decide whether to shoot it down or not. He fired the missile and shot down an incoming Silkworm missile. The subsequent investigation highlighted that there was no way he could have distinguished the radar signature of an incoming missile or an allied A6 aircraft. It was only a subtle difference in the track of the signature that alerted Lt. Cmdr. Riley that was so subtle that it was only discovered after 3 months of intensive analysis of the records. It was only through his “gut feel” of something being wrong that led him to fire: the dopamine system in the brain allowed for a faster, better decision because in the specific situation some kind of efficient, experience-based pattern upset Riley into taking decisive action.

Our anterior cingulate cortex (ACC) helps us to learn quickly and allows us to feel the emotions through the action of dopamine\*. Humans and higher primates have special neurones called spindle cells that connect both the rational and emotional parts of the brain. So, when the ACC detects an anomaly in its expectations, it triggers both the emotional and rational parts of our brain alerting us to an anomaly.

This interplay between the emotional systems of the brain and our rational consciousness powered by our cerebral cortex is critical in making decisions. Therefore any leader should have an understanding of the decision making process.

### *3.2 Emotional Intelligence*

One of the currently expected panacean aspects of leadership is emotional intelligence – the ability of leaders to understand, assess, and control one’s own emotions and that of others. Goleman\* has popularised the concept in the business world. The ability to relate to others and even influence others through understanding their emotional states is seen as a key skill in relationship management, managing conflict, influencing, etc. As leaders work through people, then an understanding of empathy is critical to the role.

Emotional intelligence seems to be associated with mirror neurons. Mirror neurons, many say, are what make us human. They are the cells in the brain that fire not only when we perform a particular action but also when we watch someone else perform that same action. Dr Itzhak Fried at UCLA reported in

2010\* the detection of brain activity not only in the motor regions but in the vision and memory regions of the brain. Mirror cells fire when we observe others performing actions in the areas of the brain that fire when we perform such actions.

With Fried's result, the brain mechanisms involved are beginning to be understood. Prof. Simon Baron-Cohen of Cambridge University (yes, he is Borat's cousin!) has been studying people who lack empathy at the Autism Research Centre in Cambridge. In his book, "Zero Degrees of Empathy" he describes how MRI scans show certain individual's brain mechanisms make them unable to put themselves in place of others. This lack of empathy for others cause these individuals to appear cold and perhaps even evil. Interestingly enough, the Annual Conference of the British Psychological Society in 2011 announced that the majority of senior managers studied had the psychological profile of a sociopath, i.e. one who lacks empathy!

The preponderance of managers and leaders with a lack of emotional intelligence may well be situational. Fred Goodwin was renowned for his daily "Board Beatings" at RBS. If a situation requires senior executives to cut costs and downsize quickly, those who are extremely empathic may not be able to execute what is required. On the other hand, where a situation requires innovative thinking or out-of-the-box solutions having an empathic leader may help to obtain the best out of creative talent. By contrast, Steve Jobs showed little empathy for his colleagues, but arguably dictated the design of hardware, software and IT-based systems (think of everything associated with iTunes). The activity or lack of activity of mirror neurons may be detectable, but they do not explain how situations throw up inexplicable results that impact on the enterprise.

### 3.3 Neuroeconomics

Our final look at neuroscience is in the economics sphere. Traditional economics has always assumed that individuals within marketplaces act rationally based on maximising the value of economic transactions. Levitt\* has questioned the "economic man" assumption in micro-economics and highlighted the need to study actual behaviours of people rather than that of the assumed "rational agent" This has now been extended to exploring decision making through MRI imaging of individuals as they make decisions where there is uncertainty and risk.

It has been demonstrated in psychology that people have a risk profile that is asymmetric. We tend to over-value potential losses and under-value future gains. The study of neuroeconomics applies the techniques of neuroscience and complex systems theory to the study of choice.

Leaders often make implicit assumptions based on received wisdom. For example, many organisations accept that paying bonuses to senior managers is not only effective but is desirable. Yet when we look at the neuroeconomics in Dan Pink's book "Drive: The Surprising Truth About What Motivates Us" we find the results are entirely situational. If we motivate workers doing a simple task through bonuses, we get better performance. If we motivate workers who have to make judgement or balance many factors, we get worse performance. In the latter case, the individuals game the system!

Clearly, better understanding of how people make choices is important to leaders of an enterprise in understanding the behaviour of customers, stakeholders and employees, but what is uncovered by science inevitably turns out to be situational.

## 4 Situational Framing for the Brain

David Rock's SCARF model\* provides a way for those in leadership positions to examine the human factors that are important to making organisations work. It highlights the need for leaders to provide conditions in which their teams can work effectively. Brains are not clockwork motors whose actions can be predicted by knowing how the parts are linked. They are complex interacting systems with inputs

from their environment – the situation they are working in – with feedback processes that may well be understandable, but impossible to predict.

Now that much of the mundane and repetitive tasks have been automated. Enterprises are demanding more from their employees than just to operate processes. They are demanding that employees innovate and create more value, but aiming to “automate” people by crudely exploiting knowledge of neuroscience is unlikely to succeed. Kenneth and William Hopper in their book “The Puritan’s Gift” trace the decline of “the Great Engine” companies that fuelled the second industrial revolution between the 1920s and the 1950s and gave the US global economic dominance. They claim that one of the main causes of this decline was the adverse impact on these organisations of what they call “the Cult of the (so called) Expert”. Whether it was Taylorism\* or its modern counterpart, Business Process Re-engineering\*, the blind following of managerial fashion leads to dilution of focus which makes particular situations, e.g. IT projects, unfocussed and deleterious to leadership.

Enterprises exist in complex environments which makes for complex internal situations which leaders need to shape and manipulate to excite the neurons and hormones that make those leaders valuable to enterprises. If neuroscience is to help, its knowledge needs to be applied with some finesse: managers and leaders should help frame situations in a way that maximized the efforts of leaders and their teams.

## 5 Conclusion

Large and complex organisations are more than just business processes to generate cash for shareholders or other rewards for stakeholders. They are social constructs (i.e. made by people) that people invest time, effort and commitment. They are not factories where “automated people” are the machines.

Busy CIOs, like other busy managers, look for certainties that simplify their complicated, complex and sometimes chaotic lives. One of the most effective “tools” in the CIO armoury is leadership, their own and that shown by others they depend on, but it is a tool which is elusive to define and hard to deploy consistently and predictably. The emerging findings from neuroscience that allow researchers to in effect see what the brain is doing when leadership tasks are undertaken, offers a promise of certainty in leadership.

However, is this promise likely or even possible? If we look at the SCARF model\*, it is not a deterministic rule-based formula. It describes some factors that a leader needs to consider in undertaking his or her role. In applying the model, the leader must make decisions and judgements about the situation.

We as CIOs tend to dwell in the realm of logic and facts and we can often ignore the people factors in a situation. Neuroscience reminds us that peoples’ brains are not computers and that our behaviours are conditioned by evolution. We are social beings and many of our behaviours are dictated by deep emotional needs. The neuroscience shows this and shows ingrained, experiential decision-making patterns and other situated behaviours. We are all different, and in some certain inclinations are stronger than others. Therefore even applying the findings from neuroscience, managers and leaders have to take into account the situation: what needs to be done, the time scales, the people, etc.

If any approach or method claims to be universally applicable, then it is likely to be snake-oil which is no good for the brain. Situational thinking is food to the brain!