

# The Neuroscience of Leadership

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## ***TEC: A neuroscience-based model for influencing and inspiring***

**Understanding the topic of leadership has never been more important. Through leadership, things either improve or decay. After interviewing 649 leaders, Ian Rheeder synthesized his findings into a simple, yet extremely powerful model – *trust, engagement and competence* (TEC System) – these three interconnected domains offer an elegant tool to track and measure a leader’s behavior. Fittingly, neuroscience has spawned an avalanche of discoveries supporting the TEC Leadership System.**

### **Background**

Modern neuroscience has exposed that we are primarily a social species. And in the boardroom, because of these associated primeval caveman reflexes to connect, we are not half as rational as we think we are. Our ancient mammalian brain (limbic system) is the evolutionary residue – a current maladaptive misfire from the past – that should be factored into any leadership model. Overuse of fear, for example, will disable a follower’s rational “human” brain (neocortex), shutting down cognitive and creative reasoning of the prefrontal cortex. At the crux of leadership is adapting our style to these primal idiosyncrasies.

We now know that people have an unconscious repulsion to being persuaded. Nobody likes being “sold to”. Fortunately neuroscience has also exposed that people are strongly motivated by the emotional engagement of trustworthy relationships.

So how do we persuade, and get cooperation, without *forcing* someone to comply? Let’s now look at how leaders, using the three TEC domains, will achieve great heights.

### **TRUST (Reputational Capital to Develop Mutual Trust)**

Trust is the overarching prerequisite of all relationships (the “foot in the door”), and in an uncertain world, there is an increasing need for the emotion of trust. At a neurobiological level, trust produces the bonding hormone oxytocin. Studying the TEC Leadership diagram (below), it’s interestingly to note that both emotional *engagement* and *competence* fuels the *trust* segment. Because of our biological circuitry, whether you are aware of it or not, we are inherently attuned to seeking trust. Trust is the central social lubricant – the basic need of our “mammalian” brain in maintaining strong relationships. Trust is the platform – the binding force – between a leader and follower. Trust is sacrosanct.



TEC Leadership System: Copyright Ian Rheeder 2012

**Fig 1: TEC Leadership System:**

**Leadership Capital = Trust (reputational capital) + Engagement (relational capital) + Competence (managerial capital)**

Neuroeconomist Paul Zak’s studies show that people are motivated by returning favours, just as much as raw self-interest. We’re foremost social creatures. When trust is displayed (i.e. a genuine smile, compassion), we are hardwired to reciprocate and return the favour. Thus by engaging with people at this emotional-oxytocin level, the interest in the leader’s message escalates, and so too does the followers’ need to reciprocate the favour.

No cultural connection or intentional shared values emanating from the top – then no bottom-line results.

No matter how great and clear the vision, if the people don't first buy-in to the leader (clear values, clear principles), they will not be inclined to walk the untrustworthy road to that perfect vision. Leadership is an inside-out thing. By a strong self-awareness of their values or principles (their culture), the leader’s actions are authentically aligned. Professor of psychology, Robert Plutchik, singled out *trust* as one of the eight basic emotions we feel, and that the opposite emotion of trust is *disgust*. The opposite of a high-trust leader therefore should be described as a *high-disgust* leader. Over the long haul, a credible character is key — know how to build trust (ref. Fig 1: TEC Leadership System).

Because of our primary survival need for *clarity* or *certainty*, we either box people “I *trust* you”, or “I have *disgust* for you”. There is no lukewarm state of indifference. This sheds light on why most customers who defect, defect to the opposition just because of indifference (lukewarmness). In other words, if there is no evidence of trust, the feeling of disgust sets in. Nature’s survival mechanism has just programmed us this way. This is why it’s so important for the leader to go out on a limb and create the physical evidence that they actually are on the side of their group; that they genuinely do share a strong value congruence with their group (i.e. integrity). Ideally this is why the leader needs a track-record of integrity before they enter into a senior leadership position. Yet where

there is no trust in the leader, performance-destroying suspicion and a tacit uneasiness — a disconnection — is felt across all levels in an organization, country, family or team. This anxiety or nervousness is felt in the limbic system, starving the prefrontal cortex of oxygen and glucose, causing followers to make costly mistakes whilst losing their ability to innovate.

## **ENGAGEMENT** (Relational capital, typical of the transformational leadership style)

Followers should come to work because they want to. Not because they have to. Let's explain how an *engaging* leader puts their group onto a natural high. *Our ascending monoamine system* (AMS) is made up of three separate systems: serotonin (a feel-good neurotransmitter), norepinephrine (arousal neurotransmitter/hormone) and dopamine (reward-motivation neurotransmitter). Interestingly, snorting cocaine also leads to an increase in serotonergic, noradrenergic (adrenaline), and dopaminergic neurotransmissions. The AMS gives us insights into what a great leader can trigger in a follower. Cocaine (like a great leader), increases our alertness, feelings of euphoria, well-being, energy, motor activity and feelings of competence. In short, engaged followers, now with their AMS pumping out these three neurotransmitters, become super conscious and engaged at work. But where there is no emotional bond, disengagement (mind wandering) creeps in, plummeting productivity, learning and creativity.

Manipulative or toxic leaders (usually without competencies or trust) unfortunately over-deliver on this charismatic engagement style to gain their followers' vote. Done for effect, this manipulative engagement gave rise to Ronald Reagan saying, "The nine most terrifying words in the English language are, 'I'm from the government and I'm here to help.'" Like it or not, transformational leadership is a placebo. What do you think Barack Obama did with his charismatic speeches? "Yes We Can!" But could he really do it, and could the followers do it too? Many top leaders, in spite of their excellent credential and competencies, cannot get the vote today without the placebo of a great emotional speech. That is ridiculous when you really think about it. But for better or worse, you should now start appreciating how the hype of inspirational *transformational leadership* works. Because of the neurobiological affect it has on us (ref. TEC diagram), emotional engagement is key.

Pioneer of the "transformational" and "transactional" leadership styles, James MacGregor Burns (1978) said that these two styles are mutually exclusive. However, Bernard Bass (2008) has found that combinations of both transformational and transactional leadership styles are complimentary (mutually inclusive) in organisational psychology; transformational or visionary leadership enhances transactional leadership, but does not replace it.

In his book, *Leading Change* (1996), John Kotter suggests leadership skills drive "change" but management skills "controls" the entire process. Therefore leadership is much more than engaging charisma and vision. In his article *The Vision Thing* (2004), John Humphreys says, "vision isn't the starting point — it's a byproduct of competent analysis" because "Without analysis there can be no useful insight." Humphreys says that strong leadership skills without management competencies can lead to chaos and the demise of the organisation. Managers need to assess the situation, redesign strategy, measure, design support programmes and implement change programmes. With all this agreement and evidence, this is why the TEC Leadership Model embraces both *transformational* and *transactional* leadership styles.

Let's now take this "soft" transformational hype, and bolster it with "hard" competence.

## COMPETENCE (Managerial capital, typical of a transactional leadership style)

In the book *The Psychology of Leadership (2005)*, Tom Tyler warns that leadership should not only be about “motivating” the group, but also should “set goals for the group (vision)” and “structure the organisation so that it can effectively attain those goals (implementation).” Hence, after all is said and done, decisive action counts the most. It’s important to remind ourselves that Peter Drucker also said, “Leadership is all about results.” This does not mean the leader should use fear to motivate, but rather keep followers appropriately challenged and productive. The leader’s observed competence – their *expert power* – excitedly keeps their team on their toes, watchful and vigilant (ref. Fig. 1, producing norepinephrine). Here the leader *influences* more than *inspires*. Steve Jobs was rude and rough, but his observable competence and vision built trust. Elon Musk monitored the changing environment, engaged his people with impact, and took decisive action. Norepinephrine activates the amygdalae, which activates the locus coeruleus, which activates the cortex, putting us in a fairly alert and energetic mode (Sapolsky, 2017:43).

Leadership and management are flip sides of the same coin. Remember that a transformational leader keeps their followers’ ‘chins-up’ – excited about the shared vision; and a transactional manager keeps their ‘chins-down’ – energised to implement the mission. Thus you need to know when to lead and when to manage. In his book, *A force for Change: How Leadership Differs from Management (1990)*, John Kotter distinguishes a manager and leader as follows: managers *organise* and *control*, whereas a manager who wants to lead needs to *inspire*, *align* and *motivate* his people. The inspirational leader should give her people a big “why” to act. Whereas the typical manager says, “Why you’re looking up? Get your chin down and work!” But, if people are well lead with strong enough reason to act (a why), they will look forward to being ‘managed’ in this transactional way.

**“Get to know their *values*, their *vision* and their *capabilities*. If you don’t do this, there will be no trust; and if you have no trust, you can’t lead.”**

## SUMMARY

The three-dimensional principles of art can be taught and analysed by using colour, line and form. Likewise, the diverse art of leadership rests on three pillars, if you will: Blending *trust* (*reputational capital* or “*line*”); *emotional engagement* (*relational capital* or “*colour*”); and *competence* (*managerial capital* or “*form*”). Blending these three TEC domains produces a powerful cocktail of neurotransmitters and hormones, sparking the follower into action.

Leadership must be results driven too. Success or failure hinges on balancing these three TEC things, and it’s the synergistic neurobiological effect of these traits that is more important than the separation of any one admirable TEC attribute. You may know of a great leader who only possesses 2 of the 3 traits, but that should not detract from the fact that they would have been even better had they excelled on the third trait too. Strong starters may ooze an *engaging* transformational leadership style, but strong finishers have transactional managerial *competence*, built on a solid platform of *trust*.

The definition of an excellent TEC Leader now becomes clear: A great leader is *trusted* and emotionally *engaged* with their group, and because of their appropriate *competencies* and contextual mindfulness, they can intuit decisions and implement superior solutions, *faster* than their rivals.

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