The Human Cost of Control

As the speed of life and business has increased with advances in technology, organisations have increased in size, posing many challenges our industrial ancestors may not have faced.

To accommodate larger numbers of people in businesses, increased production *and* service expectations, alongside rising commodity and lower sales prices in a global market, not to mention the challenge of working with 'virtual' teams, we innovative humans have developed various solutions.

In the computer age, first came MRP[1], then MRPII[2] & eventually different flavours of ERP[3] & MIS[4]. Alongside this we find Strategic operational models like BSC[5], EFQM[6], Hoshin Kanri[7] and tools like Lean[8] and Six Sigma[9], OpEx[10] and Agile[11]. The common factor in them all is that they aim to connect a set of complex dots in a complex network of relationships to 'provide control'.

And there's the rub; controlling process and procedure, predominantly with computer-based solutions (Logic) which don't always make sense, can be shown to have a negative impact on the performance of other components in our organisational systems … i.e. people!

Try and control[12] people like you control a process and rather than the 'control force' provoking a predictable deterministic logical 'equal and opposite reaction', you will often provoke deeply embedded defence mechanisms, potentially provoking a disproportionate, irrational and emotional reaction that detracts from individual, team and ultimately organisational performance. Build this into the culture and leadership education process and you have yourself a significant problem the vast majority, educated within 'the system', will remain wilfully blind to.

This is a complex message in a world sold on simplicity, so it hasn't become a popular subject, even though ignoring it leads to chronic organisational and social underperformance.

To delve into this world of the Socio-technical, i.e. the cybernetic elements of 'Systems' that we aim to control logically … I'm going to try to connect a few dot's I've noticed through my 26 years of experience in companies across Europe. These 'dots' come from the worlds of psychology and neuroscience and quite surprisingly include Dogs, Monkey's and Birds.

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In 1964 Martin Seligman strapped a dog down to an electric plate and electrocuted it. The dog yelled, barked, strained, cried, urinated and defecated … all to no avail.

After a few hours of this torture Seligman removed the straps and electrocuted the dog again. The dog just lay there taking the pain. It had learned in the space of a few hours that nothing it did could change its prevailing conditions: it had given up.

From a neurological point of view, its 'seeking mechanism' (the mesolimbic pathway in the brain) had turned off and it stopped trying to find a solution because nothing it did had led to the 'dopaminergic reward' the brain receives in normal circumstances.

This experiment was horrific, but it was also enlightening. It demonstrated a principle Seligman called 'Learned Helplessness'[13]. It is a principle that can impact most every adult mammalian brain.

> Humans at work are adult mammals! (Like dogs) Under 'control' from 'logic based control systems' their 'seeking mechanism' turns off.
> They stop trying to find solutions. They stop innovating!

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A monkey was placed into a cage. In this cage, there was a bunch of bananas on top of a ladder. Every time the monkey went to get the bananas it was squirted with ice cold water.

A second monkey was introduced to the scenario. The first monkey tried to stop the second from going after the bananas. The second monkey ignored the first and tried anyway, only to be squirted with icy water. The second stopped trying to get the fruit.

A third monkey was introduced. The first two stopped it from trying to get up the ladder. This time peer pressure was adequate and number 3 didn't try to get the fruit.

When the fourth and fifth monkeys were introduced, the same thing happened. However, when a sixth was brought in, the first was removed. The sixth monkey was convinced by the group not to get the bananas. The same happened when the seventh was brought in and the second was removed.

The water was turned off.

Now of course, there are 5 monkeys in a cage, all of them avoiding fruit for reasons they have no first hand experience of and no further monkeys introduced to that cage ever tried to get those damned bananas.[14]

Belief about what is 'good' directly (i.e. via neurological action) and indirectly (via the mechanisms of social interaction) affects behaviours.

And it doesn't matter if the belief is about bananas or 'Lean tools', the earth being flat vs. round, the 'Keynesian Economic' view that perpetual growth is sustainable or the cultural acceptance of a corrupt version of democracy, which puts the development of wealth above the development of virtue, it can and does get passed on from generation to generation.

It also doesn't matter whereabouts in society the belief is held, whether it is in the House of Lords, Barclays Bank (members fixing Libor rates), a family home, a Street Gang, a boardroom or department of an organisation, people across generations will pass a belief around like a pass-the-parcel package that no-one ever stops to unwrap, look inside or understand in detail.

Inheriting popularised beliefs about what is 'Good' or 'Bad' is something every adult mammalian brain will do naturally in a social environment.

Considering the Brain as an organ which constitutes only 5% body-mass while consuming 20% of the energy produced by the body (Medina et al), it is easy to understand that one primary function of the brain's 'standard operating procedure' is to reduce levels of glucose consumption. In fact, John Medina in his book 'Brain Rules'[15] suggests that we (probably) only use up to 20% of the brain at any one time, because using any more than this requires too much energy. Unable to produce enough energy from food consumption (without other issues, like free radical production coming into effect), we have headaches, have trouble thinking straight (rationally) and can ultimately feint, shutting down other systems until energy balance is restored.

The brain has ingenious ways to avoid this that we're only just coming to understand. i.e. We don't see everything we think we're looking at, we fill in much of what we think we're seeing from memory, as it's less energy consuming to fill in pictures in this way than it is to process a constant flow of information through our photo-receptors; we are also really good at making assumptions for the same energy requirement reasons.

The kind of assumptions we make can be in respect to a social belief, or that a predicted performance target is a reality rather than a guess. These types of brain processes reduce our need to think too hard about complex and often moral and philosophical subjects. A reduction in such thinking = energy saving. Who Knew? Our brains are designed to be green!

This all becomes very complex at a neurological level, and we have to be cognoscente of issues around the reduction and removal of free radicals, as mentioned above (Medina), the purpose of brain derived neurotropic factor (YA Barde[16]) and the neurogenesis process (Gould[17]) – but that's all too academic for this little observation.

So, in summary and with an understanding of these interconnected neurological and psychological issues (all part of the 'Human' system society systematically ignores), we might generally say, that assumption based on popular beliefs allows us to reduce energy consumption to achieve a level of neural efficiency.

> Humans at work are adult mammals! (Like Monkeys) Under pressure from peers, relative to beliefs / assumptions about what is 'Good' (often measures & rewards) – they stop thinking for themselves and fail to exercise their own free will and choice.

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If I hold a rock, but want it to change, to be over there, I can simply throw it.

Knowing the weight of the rock, the speed at which it leaves my hand, and a few other variables, I can reliably predict both the path and the landing place of a rock.

But what happens if I substitute a [live] bird for the rock?

Knowing the weight of a bird and the speed of launch tells me nothing really about where the bird will land. No matter how much analysis I do in developing the launch plan … the bird will follow the path it **chooses** and land where it **wants**.

<div align="right">Attributed to Richard Dawkins (Plsek, 2001):</div>

This is **the difference between 'Purpose' and 'Purposeful'** – Humans use the rock to serve their purpose but we humans are purposeful, and we don't end up where we're pushed or thrown by methods to control us, just like a bird won't land where it's thrown.

To understand what that means technically, we have to understand the primary purpose and complexities of survival as defined by the adult mammalian brain, including defence mechanisms, emotional neurotransmitters, communications between the hippocampus and the Amygdala (particularly obvious in cases of PTSD) etc. but again, all that comes with a new language and gets a bit complex for anyone who hasn't been exposed to that language before.

For our purposes here, let me put it like this. We are all motivated by what Lawrence and Noria (Now Dean at Harvard) called 'The 4 Drives' in their co-authored book 'Driven'[18]. These are the Drives to:

1. Acquire
2. Bond
3. Defend
4. Learn

In respect to No.3 our defence mechanisms ensure we defend against those things we fear & against any threat of pain or damage (Emotional or physical). Hence we throw the bird and the bird takes avoiding action in it's own defence, just as we would defend ourselves in like situation. This helps us realise the meaning behind the Von Clauswitz adage 'No battle plan survives its first encounter with the enemy'. i.e. no matter what's planned, where people are acting in defence of themselves, their actions will not be what we predict or require. Threats can be perceived and related to many experiences, e.g. injustice can be a threat, or, a lack of understanding or a lack of sense from logical control systems like ERP or MIS. Therefore, these same principles apply at work!

It follows that it's in the interest of any systems thinker, or leader, in any organisation of people (business, sports, education, politics) to know what people fear and defend against.

If we don't know this, how can we lead to create conditions in which we reduce and minimise those triggers, which provoke reactions we don't want, or increase and maximise those conditions, which trigger the behaviours we do want? Positivity, Engagement, Innovation, Ownership, Empowerment, Autonomy etc.

So what are our fears?

We've all heard that we're born with two primary fears. It is said that these 'genetically coded' fears are;

1. Falling and
2. Loud noises

But we *don't* hear so much about the two primary fears that get imprinted (neurogenesis – Gould) through Bio-Survival and Emo-Territorial imprinting phases (Shepherd[19]).

These two fears are;

1. The fear of Failure
2. The Fear of Rejection

(Tracey/ Hill / Carnegie[20])

This is another whole psychological subject, that touches on parental **control,** blame, guilt and other negative emotions, justification, association, comfort, consistency, congruence & confidence, as part of our defence mechanisms, but for now, it will suffice to acknowledge the headlines when thinking about people in the world of work, and draw the following conclusion.

Irrespective of the logic used to predict outcomes and make plans, if any aspect of that is interpreted / perceived by the individual as a 'Fear trigger' (biased to their own worldview as formed from their own individual sensory and emotional experience of the world), that individual will avoid and oppose that fear trigger in defence of self, just like a dove that learns it must fly when thrown to avoid falling.

> Humans at work are adult mammals! (& Like Doves being thrown) Under threat or fear, perceived or real – they sub-consciously and automatically react in defence of themselves.

There is a lot more to add in respect to stressor hormones, chronic stress, damage to cells and brain re-generation, under social or mechanistic conditions of **control,** which provoke issues of cognitive dissonance etc. etc., but for now and from those 3 examples above, dogs, monkeys and birds, we might suggest that;

The capacity to make progress, for an individual, team, company or society, is negatively impacted when faced with a set of prevailing conditions, which confirm;

1. **Any action taken, (preceded by beliefs, thoughts and feelings) is 'unable' to effect outcomes (Like the dogs) and**

2. **Any innovative thought or relative action attempted, is considered bad / unacceptable at a social level for largely forgotten / unidentifiable / historic reasons. (Like the monkeys) and**

3. **A reliance on inert (technical / logical / fiscal) systems to exercise 'Control', even where such logic becomes a sub-conscious 'fear trigger', is accepted, standardised and considered best practice / normal (Throwing birds as if they are rocks).**

   In such conditions, we are systematically reinforcing cultural norms, which are less than ideal *if* our desired outcomes are to maximise the potential and performance of people, teams, organisations, education and society.

This is all part and parcel of the global 'system', and the belief based boundaries (Keynesian Economics and a Capitalist Democracy) that we MUST consider if we are to challenge and improve the current, shallow, short term, logic only measures, metrics and tools based approaches which are typically employed for organisational improvement.

Only when we embody this level of understanding of connectivity and relationship into education, organisational change and performance improvement activities, 'as standard', will we see issues like Libor rate fixing, mis-selling derivatives to Italian cities and regions & consultants selling solutions that are largely 'Snake oil', addressed with rigour for positive and sustainable outcomes.

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