

How People Think®

One’s sphere of knowledge comprises their frame of reference (defined at the end of this document) and their knowledge set (K Set). Based on habits of thought resulting from education, work or personal experience and hobbies; the scientifically valid principles of neuroplasticity impact the decision making processes each individual forms and utilizes subconsciously.

“...Eric Kandel won the Nobel Prize for showing that when people learn something it’s because the wiring in their brains changes.” “...any creature that ends up learning something does so because of physical changes in its neural architecture.”¹

Basic principles associated with the concept of neuroplasticity and the effect of creating neural architecture (wiring) are explained below.

Mindsets and Assumed Constraints

One of the most limiting factors which prohibit change is the inability or unwillingness to be open to new concepts or alternatives. In his book; Creativity, Innovation and Quality, Paul Plsek refers to an explanation of habitual thinking put forth by Dr. Edward de Bono (internationally regarded as being one of the world’s leading authorities on creative thinking), “de Bono’s model is appealing because it corresponds directly to common phrases for mental activity such as ‘stream of thought’ and ‘mental ruts.’ In this model, memory is a mental rut. When we learn, we carve another rut (valley) into our mental landscape. The more frequently we access the memory, the deeper the rut (like soil erosion). The deeper the rut, the steeper the walls of the valley, the more quickly we access that stream of thought, and the more automatic is our thinking. This explains why habits are so hard to break. Habits lead to frequent access of the same mental patterns; deep ruts and steep valleys that are difficult to escape.”²

Another excellent quotation which explains the pitfalls of habitual thinking comes from Orison Swett Marden (founder of Success Magazine and often considered the father of the modern success/ motivational movement; 1850-1924), “The beginning of a habit is like an invisible thread, but every time we repeat the act we strengthen the strand, add to it another filament, until it becomes a great cable and binds us irrevocably in thought and act.”³ These habitual thought processes can have either a positive or negative impact on one’s ability or willingness to identify the need for the acceptance of change.

¹ John Medina (“brain expert”) interview with Harvard Business Review, May 2008, reprint R0805B

² Paul E. Plsek; Creativity, Innovation, and Quality, ASQ Quality Press, Milwaukee, WI, 1997, p.40

³ http://www.entplaza.com/cgi-bin/create/author.pl?cat=Orison_Swett_Marden&main_title=&term=6

At the time Edward de Bono and Orison Swett Marden described the processes, the application of neuroscience in business was unknown. Today, based on The Center for Modeling Optimal Outcomes'® (CMOO®) transformation of the concepts of neuroplasticity from medical science and cognitive remediation into business applications, we know the problems associated with many individual's decision making processes are a result of neural wiring being formed as a result of habitual thought processes. By introducing various concepts in its portfolio of intellectual property, CMOO® has identified and documented explicit methodologies to overcome the pitfalls of “mental rivers” created by neural wiring in individuals, teams, as well as within departments and entire organizations. These processes create an entirely new dimension of change acceptability.

Individuals often tend to become victims of “near thinking” (much like near-sightedness) because they are, per se, victims of the “neural wiring” created through the brain's plasticity. The “rivers” and “strands” are the wirings that, over time, have been created. The greater the level of training, education, and focus; the ability of these individuals to “see over the valleys created by these mental rivers” is diminished proportionately. In fact, at a reasonably intense level of focus (expertise), people actually think in terms of the “wired” perspective; all else can become unimportant or indiscernible because it is beyond the frame of reference “wired into” their thought processes.

Innovation Inertia

In the simplest terms, the idiosyncrasy of the mind associated with the denial of new or innovative ideas roughly translates into a “know it all” mindset of experts in any particular domain. Unlike the concept of frame of reference which limits the ability to interpret information that is outside of one's accumulated set of knowledge, this flaw manifests itself when individuals believe they have amassed all of the now current, state-of-the-art knowledge about any given concept, process or topic. In 2006, author Cynthia Barton Rabe devoted an entire book to this subject, *Innovation Killer: How What We Know Limits What We Can Imagine – And What Smart Companies Are Doing About It*⁴. While Ms. Rabe did an excellent job identifying the critical problem facing corporate America, she failed to identify the root cause of the problem. She also failed to provide systematic methodologies for how it can be resolved (other than recommending the use of what she referred to as “zero gravity” thinkers as opposed to experts).

Often, the cliché that people “can't think outside-of-the-box” is used to describe the aforementioned process that limits one's ability to think innovatively when it would make more sense to say – people cannot think outside of **their** box.

Summary

As it applies to changing one's decision making processes, the old adage must be remembered...something should be positioned as being “their idea” in order to enable what neuroscientists refer to as neuroplastic surgery; i.e. unlearning or reconfiguring existing neural wiring.

⁴ Cynthia Barton Rabe, *Innovation Killer*, AMACOM, New York, NY, 2006

CMOO® has numerous pending patent applications including How People Think® (HPT®) that address the application of neuroscience in business through the categorization of thought processes based on the mix of neurohormones. These patent applications encompass reconfiguration of neural wiring, personnel selection based on cognitive capabilities and processes, team balancing and the creation of team dynamics that optimize the principles of neuroplasticity.

In addition to creating processes for change dynamics for universal application, CMOO® has also developed specific processes for overcoming innovation inertia as well as for the creation of dynamic teams capable of identifying breakthrough innovations (as opposed to merely incremental enhancements to existing products or services).

For additional information and details pertaining to The Center's application of neuroscience in business, contact MTrottnow@TheCenterNJ.com.

Frame of Reference: Individuals assess new data and concepts for relevancy, value and/or validity by relying on a “screen” of personal knowledge and experiences. Without universally understood specific information (such as a standard unit of measure) or some form of analogous visualization, an individual's comprehension is restricted to their basic knowledge and understanding.

This cognitive process applies to both mental and physical concepts; i.e. people tend to assess their capabilities relative to previous knowledge and experience.