

Title:

Theory of Everything

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Summary:

We have problems needing solutions. We have people investigating these problems. They research. They investigate what other researchers have discovered. They perform original research examining new views and new data. They make hypothesis, perform experiments, and test the new information. New processes and technology move from the laboratory and into practice; however, the new processes do not receive acceptance and enthusiastic implementation.

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Strategic Focus, Organizational Assets, Work Processes

Article Body:

We have problems needing solutions. We have people investigating these problems. They research. They investigate what other researchers have discovered. They perform original research examining new views and new data. They make hypothesis, perform experiments, and test the new information. New processes and technology move from the laboratory and into practice; however, the new processes do not receive acceptance and enthusiastic implementation. Our naive model is we learn, we apply knowledge, we improve, and we become more effective and more efficient. The real life situation is far different from our naive model. Rather than the smooth transition from concept to implementation, rejection is inevitable. If outright denial is not apparent, then subtle subversion is almost certain. Psychological and neurological research presents some insight into why people do not accept obvious improvements. It shows why people work hard at keeping the status quo.

Our information transfer model starts with knowledge arising out of research, research develops into a useable technology, new technology becomes part of the curriculum in universities and schools, graduates carry their new technology into the workplace, then methods and processes face rejection in work life. What causes the difficult entry into the work situation? For example, why did statistical process control, developed by Dr. Walter Shewhart in May of 1924, have such a difficult time finding acceptance in modern American work? It has considerable rejection even in 2007! Most of us have the naive notion we can learn new ideas, which are perfectly sound, then put those ideas into practice.

All we need is to present the concepts, prove its value, and enjoy the fruits. The reality is a significant impediment exists between useful ideas and successful implementation. Normal human behavior will revolt against productive transformation. Individuals and groups relegate significant advances to the trash heap. Understanding the rejection behavior is the key to negotiating the implementation hurdles successfully. Understanding the behavior of people and groups is necessary to move Dr. Shewhart's very simple ideas into broad practice.

Every person has a personal "theory of everything". We exist in a world where reality is only a perception. From our birth, we intake data then try to make sense of it with respect to previous data we collected. The Scientist in the Crib by Alison Gopnik et al., documents how this process begins at birth. Eventually we individually fit all this data into a grand mosaic of the universe, our own personal "theory of everything".

So long as we are alive, we are inside a meteor storm of new data. We have plenty of receptors to recognize new information. Upon discovering a new idea, we have only three options: We can accept the new data as accurate; we can examine the new data for relevance and applicability; or we can reject the new information.

If we accept new data as accurate on its face, then we are unable to form a concept of the universe around us. New data would just replace old data. Let us use the analogy of a large jigsaw puzzle. By blindly accepting new data, we would never find a starting point. The jigsaw pieces could never relate to each other. Even though all the pieces would be on the card table, we would never be able to distinguish the edge pieces for the interior pieces. We would not be able to group pieces by having a common relationship with an adjacent piece. We would not even be able to determine if we had seen this particular piece before.

The most prudent action is to consider the new data in relationship to our existing data bank. Again, the puzzle analogy, we try to find a relationship to the already investigated portion of the picture. Is it the edge? Does it have a color relationship with the photographic theme? Does it have a shape relationship with other pieces? Perhaps we do not understand the real significance of its different attributes. Perhaps we will assemble the whole puzzle only to determine this in an errant piece. Perhaps it came from a puzzle on an adjacent table. Perhaps it is a malformed aberration. Perhaps we need to reconsider our "theory of everything" and adjust the theory to account for new information.

By far the most dominant option is to reject the new data as incongruous with

our "theory of every thing". The new information could not possibly be correct, other wise it would fit into our personal theory, "You must be wrong otherwise we would not be arguing!" A fundamental truth is reordering our personal "theory of everything" causes considerable anxiety. For a great share of the population, having a comprehensive view of the universe, which accounts for all the observed data, is much less important than being at peace. Rejection of new data is a much-preferred option to the intellectual rigor of forming a new "theory of everything" and enduring the emotional distress of the task of reformulation. Psychological experiments support the notion most people prefer to be on the firmness of the ship's deck even though in just a few hours the Titanic will sink.

Technology is simple enough to understand. Great bodies of knowledge exist in every field. Significant study, experiment, and refinement have moved every expertise far forward. The twentieth century was the age of enlightenment. Yet, it seems to be the age of greatest superstition. The resistance to productive improvement is the subject of its own study, experiment, and refinement. Steady research into the process of resistance provides some illumination.

At the core of the acceptance and integration of new work methods is a theory of dissonance postulated by Leon Festinger in 1957. In his Theory of Cognitive Dissonance, he shows by experiment that new information and new ideas cause cognitive dissonance in individual minds. The serene position is consonance where all is tranquil, when all data fits the personal "theory of everything." Cognitive dissonance raises anxiety and other disturbing emotions. People will work obsessively to reduce dissonance and restore consonance. Perhaps an individual's tolerance of dissonance relates to McGregor's X and Y theories.

The naïve notion is management can introduce all the Lean Six Sigma concepts then the work force will stand up and cheer like the French when the Allies liberated Paris. The real world situation is methods such as: Measure Define Analyze Improve and Control (DMAIC); Visual Factory; Kaizen; Kanban; Poke Yoke; and Failure Mode and Effects Analysis (FMEA) introduce significant dissonance. Management has disrupted all the individual workers' "theory of everything". Substantial rebellion; some overt; some covert; and all real; will result from the dissonance. This rebellion will have a considerable impact on the effectiveness of teams and Kaizen. For Lean Six Sigma to work, we all need to understand the Festinger Theory of Cognitive Dissonance effect. Understanding this psychological phenomenon will allow us to formulate strategies for successfully overcoming the rebellion.