



 **Canada**  
Ottawa Valley Section  
**ASQ** The Global Voice of Quality™

Conscious  
Human Intention  
in the Workplace

Nov 25, 2016

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**HUMAN**  
Organizational Excellence for  
the human side of business

The purpose of the research study was to consider the effects of conscious human intention on improvement initiatives in Canadian organizations

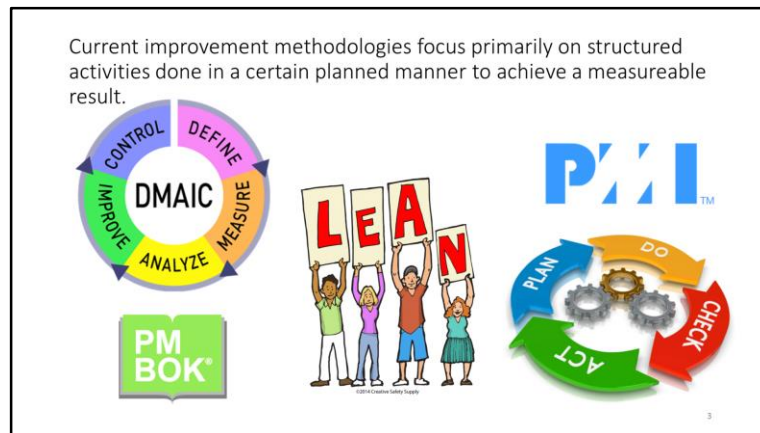


In the Fall of 2014, I was finishing up a Masters of Business Administration degree program from the University of Leicester in the UK. My last step was to write a dissertation (equivalent to a thesis in the USA), with a focus on quality. The selection of the subject was not as easy a decision as one might think. With almost thirty years in quality management and organizational excellence, I had enough breadth of experience to construct a winning paper on a raft of quality subjects without too much difficulty. But for the past decade, my focus on quality had been moving from the technical to the human side of organizations, and the increasing acceptance of quantum science theories once viewed as alternative, was tugging at my consciousness. My quandary was that if I explored the latter, I might be subject to ridicule and fail in obtaining my degree.

After much trepidation and a feeling of deep rooted angst, I finally decided that a degree stands for little unless you contribute to the expanding collection of knowledge, and that sometimes this means traveling into uncharted waters with no compass except your own sense of curiosity and intuition. My proposal for a dissertation was submitted to the university in the dying days of summer with the title “Human Intention in the Workplace and its Effects on Improvement Initiatives in Canadian Organizations”.

The study looked at a human being’s ability to manifest measurable social and physical change locally or at a distance through focused thought and emotion, and how this phenomenon is being proven at the macro, molecular and social levels, linking the applicable science and attributes of conscious human intention to current management and social theory, principles and practices. The aim was to determine its possible existence, and how it might relate in our everyday work lives, specifically to improvements in the workplace.

My initial 10,000 word literature review section was based on quantum sciences, and was rejected by the dissertation supervisor. It caused me to go back to the drawing board and build my case from management studies – **the result was mind blowing.**



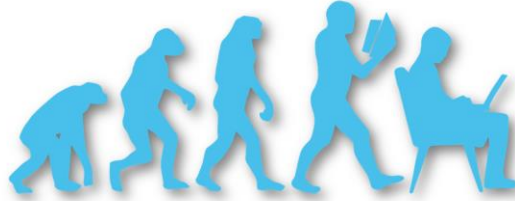
Improvement Initiatives within the workplace currently make use of different methodologies to achieve success. Although many of these methodologies may find their birth in specific management disciplines, the lines are sometimes blurred and they or their concepts may find themselves practiced by professionals in each perceived field. The Plan, Do, Check Act (PDCA), sometimes referred to as Plan, Do, Study, Act (PDSA), is a common improvement philosophy and methodology that identifies the relation of proper steps to a continuous improvement, was introduced by Walter A. Shewart and then W. Edwards Deming from the Quality Management Discipline (Oakes and Westcott, 2001). Similarly, the Six Sigma methodology originating from the same discipline is a structured program linking different individual improvement methodologies with a focus on the use of statistics and the decrease of variation within a process (Oakes and Westcott, 2001).

Process Engineers are normally concerned about the efficiencies in operational processes, and from this specific discipline developed LEAN, again a structured methodology, but this time with a focus on process waste such as number of steps, travel for employees and materials, and production times (Oakes and Westcott, 2001). Although LEAN was developed through the Process Engineering discipline, it is now a key methodology used within Quality Management as well and is many times joined with Six Sigma programs to provide a more holistic improvement.

Project Management is both its own discipline and methodology, and perhaps the most structured of all. It is used not only for improvement of existing processes and programs, but for implementation of new ones, and often has a longer lifespan (American National Standard, 2004). Concepts and components of project management are used formally and informally within the other management disciplines, but rarely to the extent project management professionals use them.

These methodologies take a **positivism** approach. Positivism is the term used to describe **an approach to the study of society that relies specifically on scientific evidence, such as experiments and statistics**, to reveal a true nature of how society operates.

Organizational management models and disciplines have evolved and developed over time."



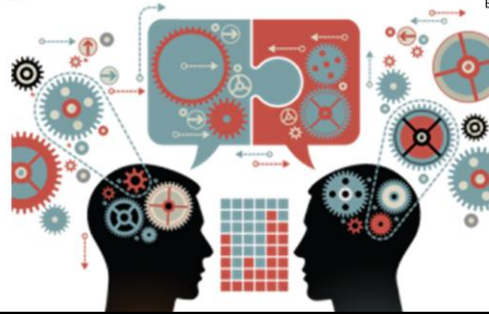
"The evolution of these models reflect changes in social values; they also reflect advancements in general ways of thinking about the world drawn from a wide range of disciplines in the physical, natural, and social sciences as well as the arts and humanities".

University of Leicester, 2005, p.20

In some instances these different disciplines may experience growth seemingly parallel to each other, without being aware that they are describing the same theories and principles in their own unique way.

Organizational Development (OD) is a field of study and practice to improve organizational effectiveness and health through planned interventions in the organizations processes, using behavioral-science knowledge.

Beckhard, 1969



One of the aspects related to humans within the confines of an improvement initiative emphasizes the changes they must go through to not only accept, but support the different social realities that the improvement will create for them.

Change Management was developed through the OD discipline, an evolving offshoot of the Human Relations side of management theory. Many times referred to as Change and Transition Management, it seeks not only to prepare for the human reaction to any large scale changes in their work environment, but to harness the capacity for employees to add to the success and sustainability of the event (Bridges, 2003). But even with its primary focus on humans and their inter-relations, OD still relied on process, like the other methodologies, and even shared some of the same characteristics.

It's traditional "diagnostic approach is based on the ideas of classical science, positivism, and a modernist philosophy" (Siminia and van Nistelrooij, 2010, p.387), and while it sought to engage stakeholders to a much greater extent and gather their collective viewpoints as part of a collaborative effort, it still planned an initiative in a diagnostic manner by gathering information about data to be collected, collection methods, time and resources required and committed, and other information similar to the other project and improvement methodologies.

A fundamental influence to the Organizational Development (OD) field, with its emphasis on people and change within organizations, comes from the sociological theory of knowledge known as Social Constructionism.

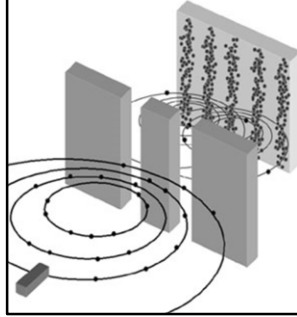


The emergence of Social Constructionism is usually attributed to a treatise titled the Social Construction of Reality (Berger and Luckmann, 1966). It contends that the reality that surrounds us is socially constructed by the beliefs, understandings, feelings, of the groups of humans that inhabit it.

There is great debate, however, about the separation of what constitutes social reality, which can change when those beliefs, understandings and feelings of the groups change, and what should be construed as physical reality; those things governed by the natural laws of science. For example, Paul Boghossian, professor of philosophy at New York University, felt that it was crucial “to distinguish between a constructionist claim that’s directed at things and facts, on the one hand, and one that’s directed at beliefs on the other” (2014, p.2). His feeling was that material things were either real or they weren’t, and that “surely science cannot construct those things; at best, it can discover them” (2014, p.4).

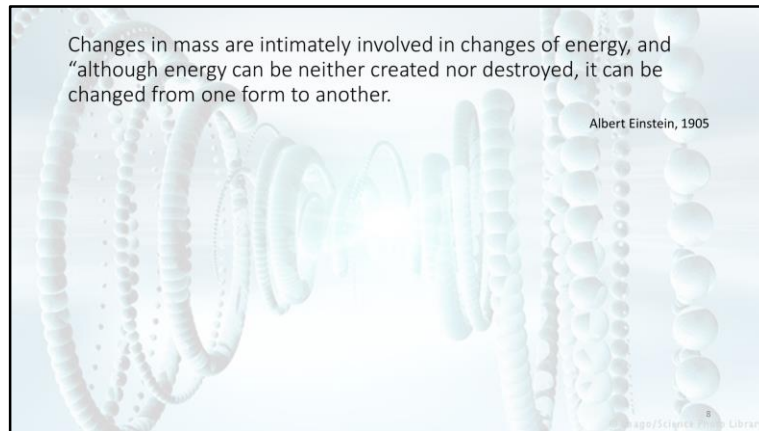
Perhaps science was doing both.

Wave-particle duality proposed that all things (energy and matter) were held in a state of potentiality until they were observed by conscious human beings, at which time they became fixed.



Around the same time that Berger and Luckmann were proposing the social theory that our reality is determined by what people believe it to be, a famous thought experiment, called **the double-slit experiment**, was being presented by a renowned physicist to prove a scientific theory proposing essentially that humans have the conscious ability to construct their world, material or not (Feynman, 1964).

The thought experiment itself, which represents a methodology for how a theory might be proven, had aspects of it demonstrated since then, but **it wasn't until just lately that it has actually been successfully performed in its entirety (Bach et al, 2013).**



"In the classical physics view of the natural world, it is common to think of mass as something apart from energy and to think that, on the one hand, there is a law of conservation of energy, and on the other, a law of conservation of mass, and that the two are independent" (Asimov, 1984, p.348).

But in **Albert Einstein's** collection of Nobel Award winning papers published in 1905, his view was that **changes in mass were intimately involved in changes of energy**, and he insisted that "although energy can be neither created nor destroyed, it can be changed from one form to another.

This would seem to **mean that a certain quantity of mass could be converted to a certain quantity of other forms of energy...and that a certain quantity of a form of energy...might conceivably be converted into a certain quantity of mass**" (Asimov, 1984, p.348).

**This meant, then, that things could change, from mass to energy, and back to mass again, in a constant stream of reconfiguration of matter, which defines the reality of our physical world and universe around us.** If we added this concept to those from the worlds of quantum physics and social constructionism, it strongly suggested that both our physical and perceived realities were dependent upon our understanding and beliefs of what they should be, and that as those understanding and beliefs change, so too does our reality.

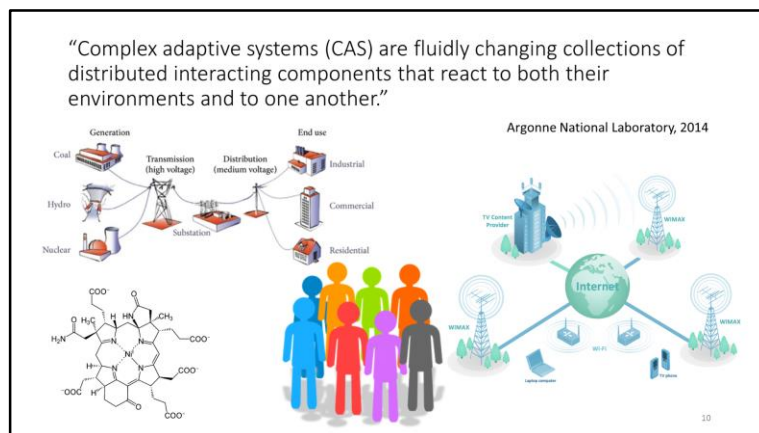
Appreciative Inquiry (AI) is a management philosophy and basis for numerous change and improvement methodologies within the Organizational Development (OD) field.



It was **first interpreted in the 1980's by David Cooperrider**, a doctoral student of philosophy from Case Western Reserve University in Cleveland, Ohio, completing placement work within an organization. When asked to inquire into what improvements could be made within the organization, Cooperrider **enlisted the help of employees by engaging them to share their common beliefs, understandings and feelings about best practice in the organization**. The results of improved performance were startling and eerily similar to the effects of the Hawthorne experiments, but with a decided difference (University of Leicester, 2005). **There were no perceivable adjustments to the employees work environment other than the inquiries themselves** (The Staff, 2005).

**Although AI grew out of OD**, traditionally following a **diagnostic approach**, it embraced another, **newer, evolving style coming into vogue called the dialogic approach** that is favoured by others within the OD field. **"The dialogic approach, by contrast, is more interpretative, based on social constructionism and a critical and postmodern philosophy"** (Siminia and van Nistelrooij, 2010, p.387). **This caused a critical shift** in the direction that reality was socially constructed. In Dialogic OD projects, **"the initial issue has been reframed** in possibility centric and future focused ways. For example, **instead of working on the problem of dissatisfied customers by analyzing what went wrong in the past, we work on the possibilities for creating raving fans by focusing on what they want in the future"** (Bushe, 2013, p.14). This was an abrupt change to the traditional improvement methodologies and **had many detractors, especially in the quality management discipline used to the concept of problem solving**.

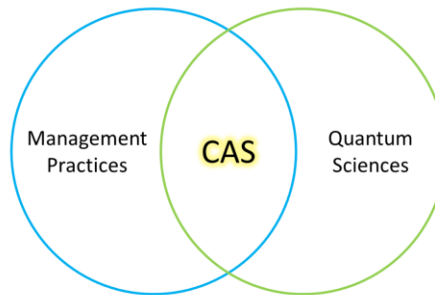
Reframing highlighted an additional departure from the traditional problem solving culture of improvement; that of looking at the need for improvement of the system holistically, rather than the solving of individual problems within the system. It also suggested fundamentally changing the perception of reality that the improvement team was looking at creating.



A new model is emerging that may become influential in how organizations manage in the 21st century. It is already a model “being taken seriously in the natural sciences, and in social science subjects such as economics, psychology and management” (University of Leicester, 2005, p.29). It belies the traditional management practices that focus on cause and effect, improvements to singular problems instead of **viewing things in a holistic fashion**, and the need for equilibrium, peace and tranquility within the workplace; a condition that is now viewed as a veritable death wish, since organizations that grow static are left behind. It also **disputes the success of closed systems**, which is representative of improvement methodologies such as the PDCA continuous improvement loop, project management and Lean Six Sigma methodologies (Gupta, 2005).

Examples of CAS include the electric power grid, telecommunications networks, the Internet, biological systems, ecological systems, social groups, and even human society itself” (Argonne National Laboratory, 2014). “The rise of CAS as a school of thought took hold in the mid-1980’s with the formation of the Santa Fe Institute” (Dodder and Dare, 2000, p.1). It is **the embodiment of a collaborative theory**, notably because it **exists across all disciplines in life**, from the study of phenomenon at a quantum level to how our social interactions in organizations behave.

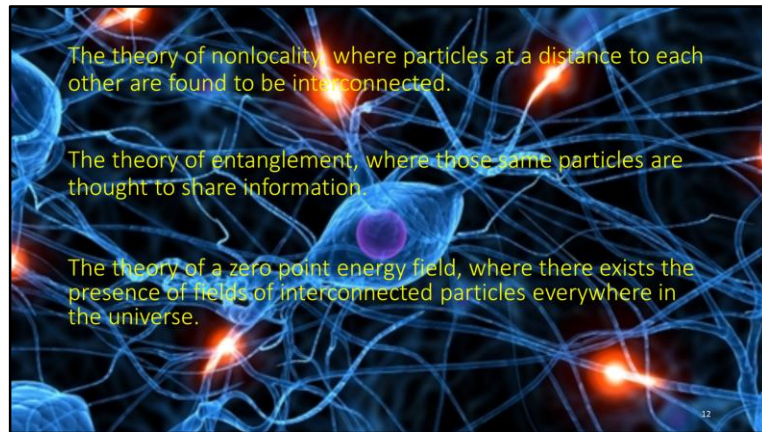
CAS constitutes a common thread of understanding between management practices and the quantum theories describing our natural world.



CAS, with its **concepts steeped in Complexity Theory and Systems Theory**, constitutes a common thread of understanding between management practices and the quantum theories describing our natural world. It may well be more appropriate as a management system model that calls for a holistic view of organizational systems and allows for improvement initiatives that utilize the evolving ways of our natural world, rather than the rigid, closed-loop processes that focus on prediction through the traditional mechanistic methods of cause and effect, and foster failure through their inflexibility to allow for adaptation of the final results.

The view that “**a system is an integrated whole**, whose properties cannot be reduced to the sum of its parts” (Dann and Barclay, 2006, p.22), for example, mirrors the views of many prominent scientists. David Bohm, an American theoretical physicist who wrote the definitive textbook on quantum physics (1951), did not believe in the separateness view of classical physics, and further postulated that everything in the universe was part of a whole, not just interconnected (Bohm, 1980).

This is supported by the scientific community through the quantum theories first proposed by physicists Neils Bohr and Werner Heisenberg through what was termed the Copenhagen Interpretation (Heisenberg, 1930).

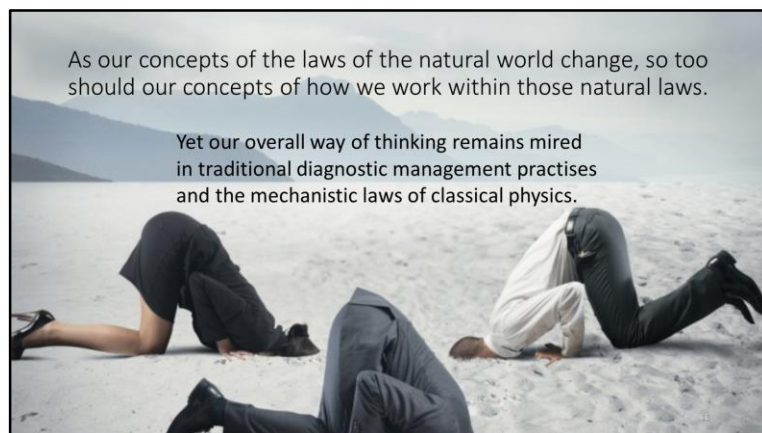


In fact, “**there is a field associated to each type of fundamental particle that appears in nature**” (Tong, 2007, p.1), and “that what we perceive through the senses as empty space is actually the plenum (a space completely filled with matter), which is the ground for the existence of everything, including ourselves” (Bohm, 1980, p.243).

Nor is the concept of nonlocality and entanglement just a theoretical exercise. As with the case of wave-particle duality, **these other concepts of how the universe works at the quantum level have been duplicated in controlled experiments.**

“Physicists at the University of Geneva achieved the weird result by creating a pair of ‘entangled’ photons, separating them, then sending them down a fibre optic cable to the Swiss villages of Satigny and Jussy, some 18 kilometres apart” (Brumfiel, 2008, para.2).

Nor is it just exclusively between two separate particles. “For the first time, physicists at the Institute for Quantum Computing (IQC) at the University of Waterloo have demonstrated the distribution of three entangled photons at three different locations (Alice, Bob and Charlie) several hundreds of metres apart” (Erven et al, 2014, p.2).



This is **substantiated in an important work in the early 1990's** by management consultant, academic and author **Margaret Wheatley** on the links between quantum theories and organisations. Wheatley wrote about the reality of an **organizational field**, similar to quantum particle fields, and the constant (cultural) weaving and changing within organizations due to interactions between human networks. Her view was that **chaos was necessary to effect meaningful change**, and its negative reputation could come from the inability to readily see the confines of order it really works within (Wheatley, 1999).

**Peter Senge**, an American systems scientist who is a senior lecturer at the MIT Sloan School of Management, is best known for his seminal work **The Fifth Discipline** (1990), where he **referred to systems thinking as "a discipline for seeing wholes**. It is a framework for **seeing inter-relationships rather than things**, for seeing **patterns of change rather than static snapshots**". In his book, he **cites W. Edwards Deming**, whom many consider the most influential figure within the quality management discipline, as his inspiration. In fact Deming, better known for Total Quality Management (TQM) and the PDCA continuous improvement wheel cited earlier, ended his life's work with a noticeably different viewpoint on how organizations create. **"The System of Profound Knowledge** (SoPK) is the culmination of Dr. W. Edwards Deming's lifelong work.

"Taking a systems approach enables management to view its organization in terms of many internal and external interrelated connections and interactions, as opposed to discrete and independent departments or processes governed by various chains of command. When all the connections and interactions are working together to accomplish a shared aim, a business can achieve tremendous results—from improving the quality of its products and services, to raising the entire esprit de corps of a company" (The W. Edwards Deming Institute, 2014, para.4).

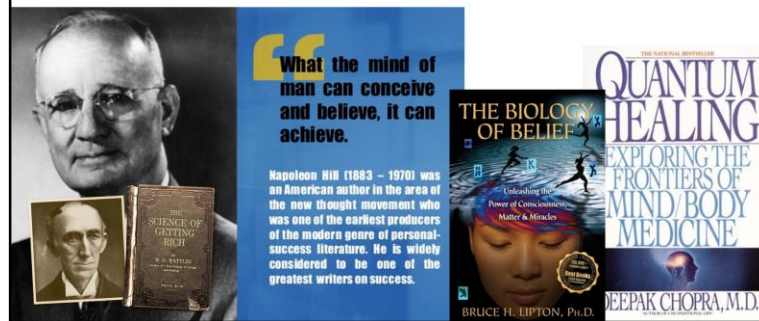
**What this paints is a picture where modern management theory is starting to mirror modern scientific theory, yet our overall way of thinking remains mired in traditional diagnostic management practises and the mechanistic laws of classical physics.**



Consider for a moment a famous question that has plagued the Western physic for hundreds of years. “**If a tree falls in a forest and no one is around to hear it, does it make a sound?**” is based loosely on Anglo-Irish philosopher George Berkeley’s treatise concerning the principles of human knowledge (Berkeley, 1710).

In the **classical sense of how reality works, the tree will fall and make a sound** in any case, hence the reasoning behind those who state the case for a division between socially constructed reality and undisputed reality, but **in the quantum view, all bets are off until a conscious observer comes into play.**

On the one hand, it may be a stretch to think that the human observer influences at the subatomic particle level, can equate into creation of material reality at the molecular and physical levels.



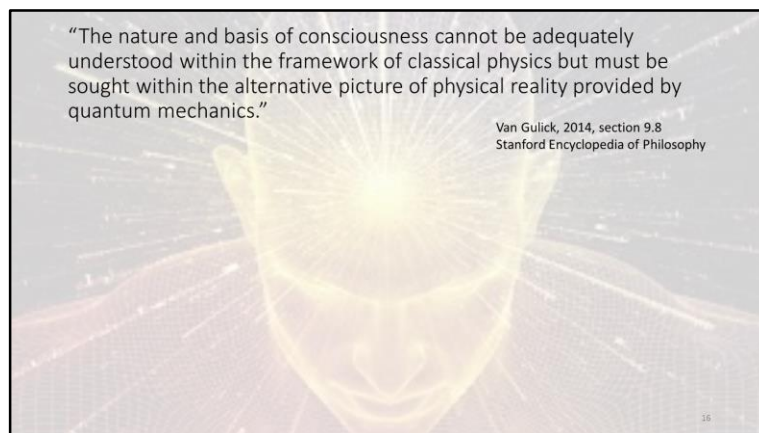
On the one hand, it may be a stretch to think that the human observer influences at the subatomic particle level, can equate into creation of material reality at the molecular and physical levels.

On the other hand, that may already be happening. In his early 20th century book, North American self-help guru **Wallace D. Wattles** talks about a “cosmic intelligence which is in all things and through all things” (Wattles, 1911, p.14). Although he has a defined slant towards religious expression, he repeatedly describes the energy of thought forms, continually held over time, being made into material things, and calls what unnervingly sounds like quantum fields “the thinking substance” (Wattles, 1911, p.22).

In the late 1930's, another world renowned author and self-help guru **Napoleon Hill** was writing a pivotal treatise on personal success that would become one of the bestselling books of all time, selling 20 million copies by the 1970's (The Milwaukee Sentinel, 10 November 1970, p. 12). A contemporary of **Andrew Carnegie** and advisor to **President Woodrow Wilson**, Hill's views on the achievement of success eerily paralleled those starting to be observed by the scientific and social communities. “The subconscious mind works day and night. It draws upon the forces of Infinite Intelligence for the power with which it voluntarily transmutes desires into their physical equivalent” (Hill, 1937, p.180).

Similar views continued on into other disciplines as well, as they applied the same fundamental principles; many of the thought provoking ideas espoused by members of other scientific disciplines. Bestselling author and **Medical Doctor Deepak Chopra** writes about the “shift from outright rejection and ridicule of alternative healing approaches to serious investigation” (Chopra, 2000, p.3), including reference to quantum theory and its relation to healing. He refers to a quantum (human) body with a network of intelligence contained in the body's trillions of cells, not just the brain, responding to thought and emotion, “not localized in space-time, extending in all directions like a field” (Chopra, 2000, p.137).

With a **PhD in developmental biology** from the University of Virginia, **Bruce Lipton** promoted the idea that genes and DNA can be manipulated by a person's beliefs. Lipton proposes that beliefs control biology and cites the lacklustre way the medical community deals with the placebo effect, “also called the placebo response, a remarkable phenomenon in which a placebo - a fake treatment, an inactive substance like sugar, distilled water, or saline solution - can sometimes improve a patient's condition simply because the person has the expectation that it will be helpful” (Medicine Net, 2014). Lipton proposes that “the placebo effect should be a major topic of discussion in medical school” (Lipton, 2008, p.108). Instead, the placebo effect is written off as an unsubstantiated statistic in experimental trials. Each of these postulations from respected members of so many of society's different disciplines all diverging in the same direction, deserve a much more serious regime of concentrated research.



Harrap's Essential English Dictionary describes consciousness as "the state of being awake and aware of one's surroundings" (Harraps, 1996, p.196). This is a default simple description that is prevalent within mainstream society and commonly understood.

But consciousness is also an airy thing. The online Stanford Encyclopedia of Philosophy says that "perhaps no aspect of mind is more familiar or more puzzling than consciousness and our conscious experience of self and world. The problem of consciousness is arguably the central issue in current theorizing about the mind" (Van Gulick, 2014, intro). But what is consciousness, precisely? Above and beyond the aspect of awake and aware, numerous theories of consciousness abound, each with their many forms. One of these is the quantum theory of consciousness which states that "the nature and basis of consciousness cannot be adequately understood within the framework of classical physics but must be sought within the alternative picture of physical reality provided by quantum mechanics" (Van Gulick, 2014, section 9.8).

This was advocated even more fiercely by Bohm who postulated an approach on the relationship between mind and matter "based on the causal interpretation of the quantum theory, in which an electron, for example, is regarded as an inseparable union of a particle and a (quantum) field" (Bohm, 1990, p.271). He speculated on the field containing similar information providing a close relationship to what we held in our own experiences, leading to a "new theory of mind, matter, and their relationship, in which the basic notion is participation rather than interaction" (Bohm, 1990, p.271).

In a recorded interview, Bohm spoke about mind-like quality of the electron (and presumably other particles), the fact of the physical universe being made up of information and substance, and finally of the primary role of information in creating form from the substance (Bohm, 1989).

What this would all suggest, then, other than the fact that we are all continuously connected to everything, everywhere, is that there is a wholeness to our existence, and that as conscious humans, we have the innate ability to create things through the formation of matter via our conscious observation.

Here's the Thing

**As soon as we inquire into social systems we change them,** and these changes are implicit in the very first questions asked. Social systems move in the direction that we most persistently and passionately discuss.

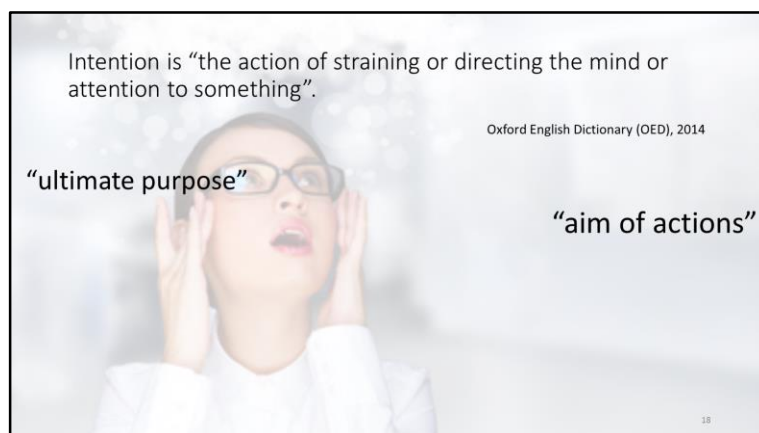
*Principle of Simultaneity*  
*(pronounced simul-to-nee-tee)*



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But **casual measurement or observation of an event is only a part of the equation**. It's also "the dynamical effects within quantum theory of the intention and attention of the observer" (Stapp, 1999, p.5), and where he/she "does more than just read the recordings, he/she also chooses **which question will be put to Nature**: which aspect of nature his/her inquiry will probe" (Stapp, 1999, p.18).

This view of the importance of what question the observer is asking about is also **one of the key social principles of Appreciative Inquiry (AI)**. The Principle of Simultaneity recognizes "that inquiry and change are not truly separate moments, but are simultaneous....the things people think and talk about, the things people discover and learn, and the things that inform dialogue and inspire images of the future are implicit in the very first questions we ask. The questions **we ask set the stage for what we find**, and what we discover (the data) becomes the linguistic material, the stories, out of which the future is conceived, conversed about, and constructed" (Cooperrider and Whitney, 2005, p.19).



In order to construct that formation of matter, however, **we need to have a focus, a goal on what it is that we wish to create**. The word intention is oft used combined with conscious or consciousness to describe both the vehicle and direction we as humans have over the formation of matter **based on the theories and principles of quantum physics, and the concepts of social constructionism**. In other instances just the single word intention is used to convey the entire meaning.

The online Oxford English Dictionary (OED) is described as the definitive historical record of the English language. In its first definition of the noun intention, it defines it as “the action of straining or directing the mind or attention to something”, and adds the notions of “ultimate purpose” and the “aim of actions” in further meanings (Oxford English Dictionary (OED), 2014).

In her seminal books *The Field* and *The Intention Experiment*, author **Lynne McTaggart’s research of the connections between science, consciousness and human intention** revealed startling discoveries that forced the subject onto the mainstream stage. She states that “**targeting your thoughts** – or what scientists ponderously refer to as intention and intentionality – **appeared to produce an energy potent enough to change physical reality**” (McTaggart, 2007, preface). Although her detractors cite the fact that she wasn’t the first to see the connections between consciousness and scientific theory and that she is an investigative journalist rather than a physicist, she was certainly exhaustive in her approach to explaining the science behind conscious human intention. She claims to have had up to twenty interviews each from some seventy-five frontier scientists on the subject of quantum physics, taking “their frequently incomprehensible answers and play(ing) them back via a metaphor until both could agree upon a lay approximation” (McTaggart, 2008, XVIII).

The attributes identified that drive conscious intention are almost as contentious as consciousness itself.

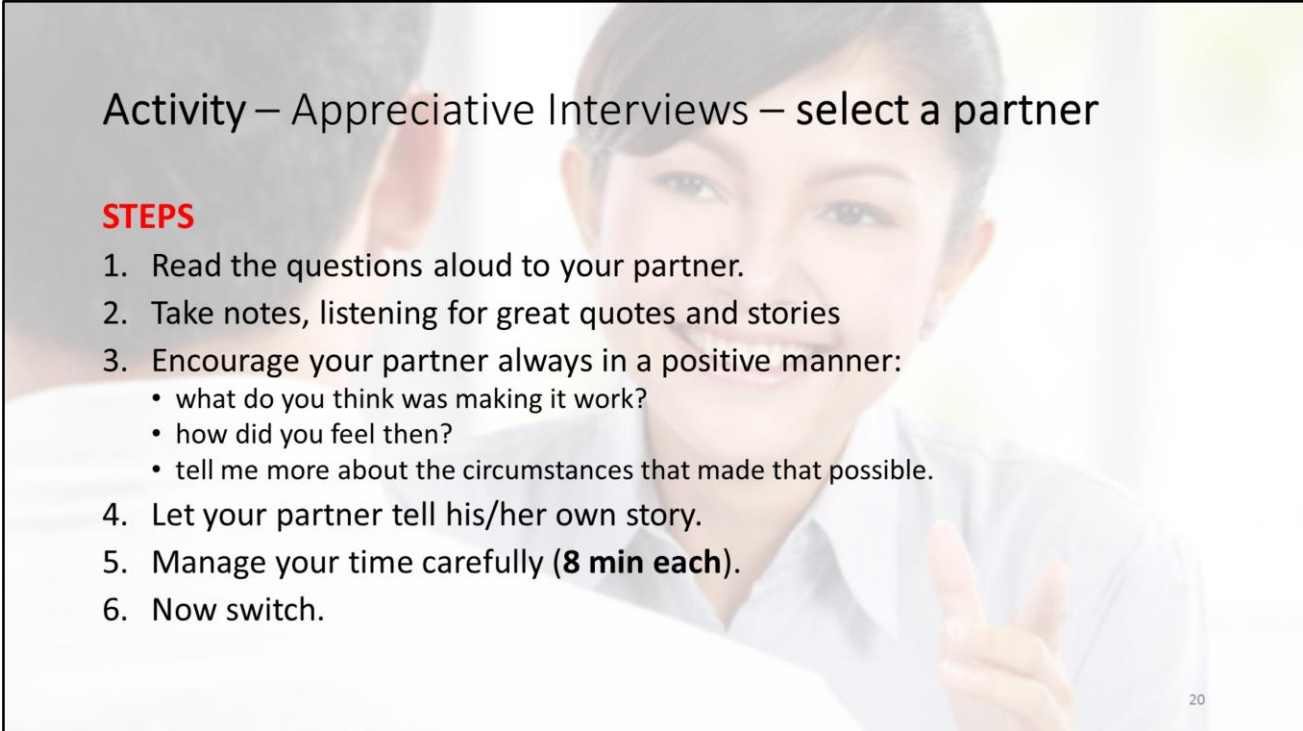
Common Attributes of Conscious Human Intention	
1	Clarity of the intention
2	Strength of the intention (individual abilities, number of participants)
3	Continuation of focus (communication, engagement)
4	Level of determination, resolve, perseverance
5	Feelings and emotion (passion)
6	Nature of language (problem-based, strength-based)
7	Level of chaos
8	Actions to support intention

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but there seems to be some common sense agreement on many of them, such as the clarity on what is intended, including the nature of the language used, strength of intention through number of conscious participants, their continued focus, determination, and emotion, including passion (McTaggart, 2008; Dyer 2010; Lipton, 2008).

Some feel that **it's not enough to want it, will it and feel it, but that actions need to be taken to support the intention** (Wattles, 2007; Byrne, 2006; Hill, 1937), and still **others feel that chaos is required** to effect substantial change (Wheatley, 1999; Gharajedaghi, 2011; Senge, 1990), including the management model Complex Adaptive Systems (CAS) itself, described as **a balance "between order and anarchy, at the edge of chaos"** (Dodder and Dare, 2000, p.3). In addition, "language, a fundamental aspect for the process of knowledge production, is not conceived of as describing and representing the world, but as a way of constructing it" (Camargo-Borges and Rasesa, 2013, p.2).

The nature of the language used to aid in conscious intention is supported by the core principles of Social Constructionism in the context of Organizational Development and AI (Cooperrider, 1986), that promotes conscious collaboration, widespread emotion and clarity of purpose for improvement initiatives using positive, strength-based language. **Although AI is not focused on the use of conscious human intention itself, it is connected through social constructionism** and contains many of its attributes, where documented case studies of its use have shown spectacular results (Ashford and Patkar, 2001; Saint, 2010).



## Activity – Appreciative Interviews – select a partner

### STEPS

1. Read the questions aloud to your partner.
2. Take notes, listening for great quotes and stories
3. Encourage your partner always in a positive manner:
  - what do you think was making it work?
  - how did you feel then?
  - tell me more about the circumstances that made that possible.
4. Let your partner tell his/her own story.
5. Manage your time carefully (**8 min each**).
6. Now switch.

A random event generator (REG) is a physical device designed to generate a 1 or a 0 lacking any pattern.

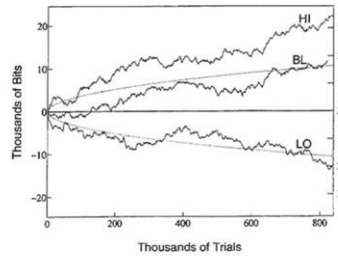


Figure 1 - Cumulative deviation graphs of benchmark REG results for HI, LO, and BL operator intentions. Parabolic envelopes are one-tail 95% confidence intervals around the theoretical chance mean. The scale on the right ordinate refers to the terminal z-scores (Jahn et al, 1997).

The laws of probability state that each number has an equal chance of being generated and so we would expect to see a normal distribution being built as we randomly generate the numbers. At small sample sizes (200), the normal distribution bell curve may not be so apparent, but as the sample size grows, the distribution becomes very visible.

During a 12 year period, researchers from the Princeton Engineering Anomalies Research (PEAR) School of Engineering and Applied Science at Princeton University completed more than 1500 experiments using over 100 unselected human operators and several different random digital processors. “For the benchmark experiments, this REG is set to generate trials of 200 binary samples each, which are counted at a rate of 1000 per second. The protocol requires individual human operators, seated in front of the machine but having no physical contact with it, to accumulate prescribed equal size blocks of data under three interspersed states of intention: to achieve a higher number of bit counts [1’s] than the theoretical mean (HI); to achieve a lower number of bit counts [1’s] than the theoretical mean (LO); or not to influence the output, i.e. to establish a baseline (BL)” (Jahn et al, 1997, 245). The baseline (BL) meant that no human intention was being forced onto the REG, and therefore it was expected to generate numbers randomly.

The Figure 1 above shows a theoretical mean, with numbers generated when there was no human intention involved (BL), and when human intention was focused on a larger number of 1’s being generated (HI) and a lower number of 1’s (LO). Although there have been a number of studies involving random number (or event) generators with similar results, this example was selected because it represented scientific researchers working in a reputable University engineering laboratory, conducting experiments over a lengthy period of time.

A group of approximately 4000 practitioners used Transcendental Meditation to decrease Washington D. C.'s crime rate by up to 24.6%.

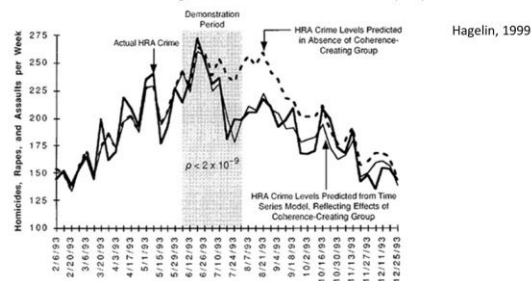


Figure 2 - Effects of the National Demonstration Project on 1993 HRA crime levels in Washington, D.C.

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from June to July, 1993, a group of approximately 4000 practitioners in Transcendental Meditation assembled in Washington, D.C. to conduct a controlled experiment in an attempt to reduce annually recurring cycles of violent crime rates, particularly homicide, rapes and assaults (HRA), through conscious intention of the practitioners.

“Time series analysis of 1993 data, controlling for temperature, showed that HRA crimes dropped significantly during the Demonstration Project, corresponding with increases in the size of the group; the maximum decrease was 23.3% ( $p < 2 \times 10^{-9}$ ) [24.6% using a longer baseline, with 1988–1993 data ( $p < 3 \times 10^{-5}$ )], coincident with the peak number of participants in the group during the final week of the assembly.

When the same period in each of the five previous years was examined, no significant decreases in HRA crimes were found” (Hagelin, 1999, p.153). The results were published in Social Indicators Research, a respected, peer-reviewed, scientific journal.

A randomized double-blind study was conducted to determine the effect of distant healing in 40 patients with advanced AIDS.

Sicher et al, 1998

significantly fewer new AIDS-defining illnesses	P = 0.04
lower illness severity	P = 0.03
required significantly fewer doctor visits	P = 0.01
fewer hospitalizations	P = 0.04
fewer days of hospitalization	P = 0.04
significantly improved mood	P = 0.02

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A randomized double-blind study was conducted to determine the effect of **distant healing** in **40 patients with advanced AIDS**. “Subjects were pair-matched for age, CD4+ count, and number of AIDS-defining illnesses and randomly selected to either 10 weeks of DH [distance healing] treatment or a control group” (Sicher et al, 1998, p.356).

The distance healers were all located in the United States and represented different healing methodologies. “At **6 months**, a **blind medical chart review** found that treatment subjects acquired significantly fewer new AIDS-defining illnesses (0.1 versus 0.6 per patient, P = 0.04), had lower illness severity (severity score 0.8 versus 2.65, P = 0.03), and required significantly fewer doctor visits (9.2 versus 13.0, P = 0.01), fewer hospitalizations (0.15 versus 0.6, P= 0.04), and fewer days of hospitalization (0.5 versus 3.4, P= 0.04).

Treated subjects **also showed significantly improved mood** compared with controls (Profile of Mood States score -26 versus 14, P= 0.02)” (Sicher et al, 1998, p.356). Although there was no significant difference between the CD4+ count of the groups, it was later reflected that it may not have been that substantial as an outcome predictor.


Let's take a break and do an experiment

**First**

1. Close you eyes and relax.
2. Hands in prayer position over heart.
3. Turn on relaxing sounds.
4. Meditate for 5 minutes.

**and then**

1. Close you eyes and relax.
2. One hand on your forehead.
3. One hand over your heart.
4. Meditate for 5 more minutes.



24

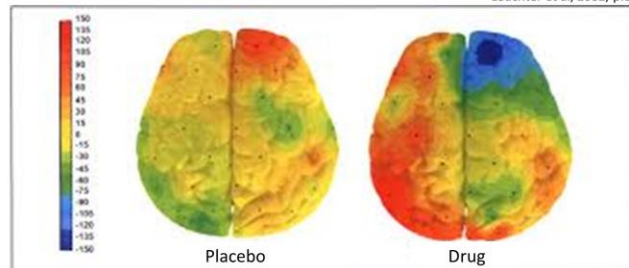
What did you feel?

Was there a difference between results from the 1<sup>st</sup> position to the other?

Which position produced a more energetic effect?

“Placebo responders showed a [statistically] significant increase in prefrontal cordance [measure of regional brain activity] that was not seen in medication responders (who showed decreased cordance)”.

Leuchter et al, 2002, p.122




“The placebo effect is very well known, being replicated in many scientific studies. At the same time, its exact mechanisms still remain unknown. Quite a few hypothetical explanations for the placebo effect have been suggested, including faith, belief, hope, classical conditioning, conscious/subconscious expectation, endorphins, and the meaning response” (Mommaerts and Devroey, 2012, p.44).

This study is not to show that the placebo effect exists; that fact is undisputed in the medical discipline. Rather it is to look at an alternative view to its being relegated as merely a result of autosuggestion. It “examined brain function in depressed subjects receiving either active medication or placebo and sought to determine whether quantitative electroencephalography (QEEG) could detect differences in brain function between medication and placebo responders” (Leuchter et al, 2002, p.122). In this case, the researchers were not purposely studying the effects of conscious human intention.

51 subjects with major depression were enrolled in one of two 9-week, double-blind placebo-controlled treatment studies over a 24-month period, with each study focusing on a different active medication. The placebo was a physical portrayal of the medication itself, and was increased in line with the active medication. “Serial QEEG recordings were performed during the course of treatment. After 9 weeks, the blind was broken and subjects were classified as medication responders, placebo responders, medication nonresponders, or placebo nonresponders” (Leuchter et al, 2002, p.122). There was no difference in QEEG measures between the groups. “Placebo responders, however, showed a [statistically] significant increase in prefrontal cordance [measure of regional brain activity] starting early in treatment that was not seen in medication responders (who showed decreased cordance)” (Leuchter et al, 2002, p.122).

This suggested that the placebo effect was not simply aping the mechanisms of the active medication, but had a different process of its own. Although the researchers were looking at ways to identify when someone was being healed as a result of the medication or medical procedure versus when they were healing themselves, the implications as to the presence of conscious human intention through the mind are equally valid.



A problem solving study found that the teams using Appreciative Inquiry reported a statistically significant increase in group potency.

Peelle, 2006

Previous research has demonstrated that **group potency** is both an antecedent and outcome of team performance.

A study was conducted with **6 cross-functional teams of 6 participants each**. “The purpose of this study was to determine if time-limited cross-functional teams socially constructed a perception of efficacy and cohesiveness through inquiry into best practices and peak experiences relative to teams focused on organizational problems” (Peelle, 2006, p.447).

**3 of the teams used Appreciative Inquiry (AI)** as their methodology and the other **3 teams used Creative Problem Solving (CPS)**. In his descriptive approach to the study, and the use of Appreciative Inquiry, the author described teams building a collective efficacy and the use of hope and optimism leading to perseverance and motivation. In contrast, he described a problem solving approach as “efforts to define, clarify, and articulate the problem when addressing issues associated with human relationships foster a climate of hopelessness and despair while being irrelevant to solution discovery” (Peelle, 2006, p.449).

The study, looking **at group potency at different points** of the team initiatives starting with task initiation (GPO) and ending at task completion (GP1), was completed because **previous research had demonstrated that “group potency was both an antecedent and outcome of team performance”** (Peelle, 2006, p.459). The results found that the teams using AI not only reported a **statistically significant increase in group potency from task initiation to task completion**, but also **statistically significant levels of post task potency greater than the teams using CPS problem solving**.

Previous studies researching the success of improvement initiatives in organizations consistently look backwards.

KPMG sent survey questionnaires to Canada's 1450 chief executives. Of 176 responses analyzed, **61% reported a failed IT project** either from over budget, over schedule, or from a failure to meet the objective - *Whittaker, 1999*



IBM Global conducted surveys and face-to-face interviews with more than 1500 practitioners worldwide including project leaders, sponsors, project managers and change managers. They found **59% of projects missed** at least one objective or failed entirely - *IBM, 2008*

The Project Management Institute issued a report where a random sample of 331 respondents showed an **86.1% success rate** based on final perceptions of success. The study also assessed the success rate perceptions of the Project Sponsor, Team and Customer - *Project Management Institute, 2013*



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Three representative studies on the state of completed improvement projects were selected based on the level of credibility (large established consulting firms and associations), dates conducted (within the past 17 years), and types of projects (IT, operational, management). The purpose in introducing these studies is to show the traditional methodologies used to analyze success rates with improvement initiatives, through the use of surveys and interviews, and linking to the decision to conduct initial primary data collection in the same way.

**KPMG** is one of the largest professional services companies in the world, employing 162,000 people, with its global headquarters in Amstelveen, the Netherlands. Survey questionnaires were sent to Canada's 1450 chief executives in leading public and private institutions across Canada to determine the level and causes of IT project failure. Of 176 responses analyzed, 61% reported a failed IT project either from over budget, over schedule, or from a failure to meet the objective. It also found that the three most common reasons for project failure were poor project planning, having a weak business case, and a lack of top management involvement and support (Whittaker, 1999).

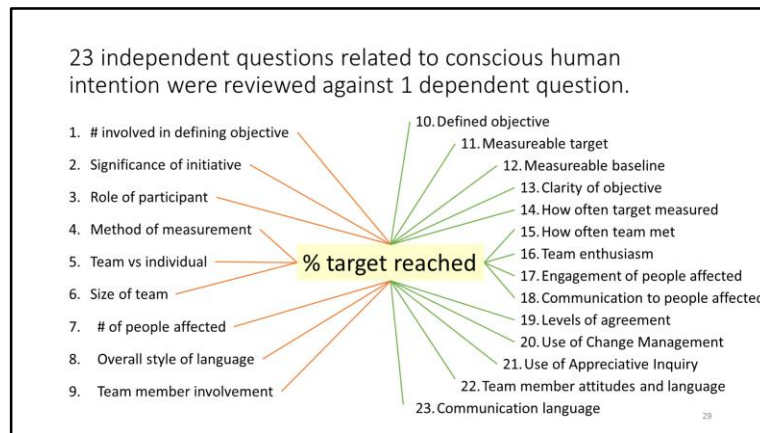
**IBM** Global Business Services, a division of IBM, is the world's largest business and technology services provider. It employs over 190,000 people across more than 160 countries. This study was conducted through surveys and face-to-face interviews with more than 1500 practitioners worldwide including project leaders, sponsors, project managers and change managers. Very similar to the KPMG study of 10 years before, the results found that, on average, 41% of projects were considered successful in meeting project objectives within planned time, budget and quality constraints, compared to the remaining 59% of projects which missed at least one objective or failed entirely (IBM, 2008).

In contrast to the nearly identical failure rate of ~60% cited in the two previous studies, a report from the **Project Management Institute (PMI)**, taken from a 2012 dissertation from the University of Warwick focusing on Benefits Realisation Management and its influence on project success, shows a different perspective (Project Management Institute, 2013). In the report, data from a random sample of 331 respondents showed an 86.1% success rate based on final perceptions of success. However, realizing that different stakeholders in the improvement might have diverse perspectives, the study also assessed the success rate perceptions of the Project Sponsor, Team and Customer as well. The results ranged from 80.7% to 87.3%.



Respondents from **six out of ten provinces participated** in the survey, the highest percentage coming from the two most populated provinces of Ontario and Quebec. **Public and private sectors had almost equal numbers** of respondents, and the size of the organizations ranged from small to large, with over half totalling 500+ employees.

In all, 395 people viewed the survey, 98 started the survey, and 50 were shown as completing the survey. In a review of the 48 incomplete survey responses, 7 were added to the complete total because they answered all questions related to the survey question about conscious human intention in the workplace, but neglected to answer the last 5 questions (questions 28-32) related to involvement in a telephone survey. In addition, a further 9 were added as complete because they answered at least all questions up to, and including, the dependent question (questions 1-12). Therefore, the sample size will vary per question, from 57 to 66.



The primary data analysis showed that almost 70% of the questions attributed to conscious human intention had a statistically significant relationship with the dependent question which represented the final results of the improvement initiatives.

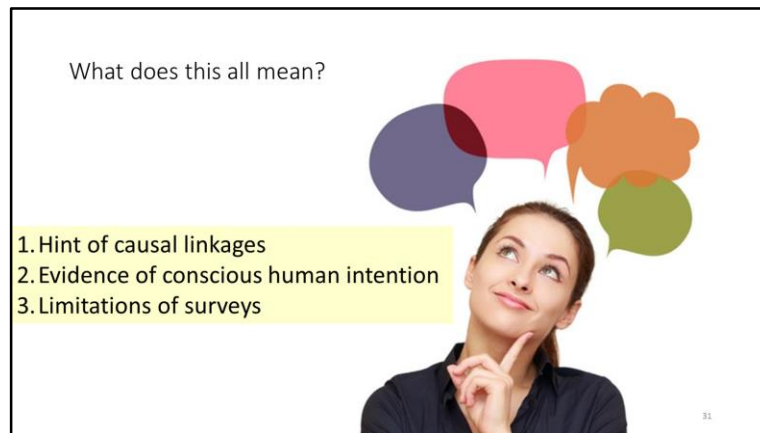
There were some conflicting results found in the primary data analysis. It was **statistically significant** with the outcome that the initiative had a clear and easy to understand strength-based objective with a measurable baseline and target that was monitored often, but whether the monitoring was directly by a human, or automatically by machine or software, didn't seem to matter; neither did the significance of the initiative. Whether there was a team at all wasn't significant either, but how often it met, its energy, enthusiasm, attitude and language was. It may be that respondents didn't see themselves as a team, but more as an informal group, or even a facilitator, and that regardless, they met often with group members and gauged their levels of energy, enthusiasm, attitude and language. It was significant that stakeholders were engaged, and that progress was communicated to them often, but whether the style of communication was problem-based or strength-based didn't matter, nor did the number of stakeholders. Finally, it was significant for the success of the initiative that things went smoothly, and that formal change management and appreciative inquiry methodologies were used.

Of the 66 survey responses accepted as completed for purposes of analysis, **88% stated that they did not meet 100% of their objective**. This is even higher than the 59% - 61% failure rate findings of both the KPMG and IBM studies introduced in Analysis and Results. Reason for failure may have been a factor. **In the KPMG study, improvement projects cancelled or deferred were excluded from their survey, though the IBM study doesn't mention the same exclusion**. The primary data survey simply asked if the respondents felt their improvement initiative met the objective's defined target, without any stated exceptions.



Questions number 28-32 of the on-line survey invited respondents to be considered for a further telephone interview, and to provide their contact information if they wished to be contacted. A total of 5 respondents were selected and scheduled for the telephone interview, representing approximately 10% of the on-line survey population. Each interview was scheduled for 30 minutes and respondents were asked a series of questions about **why they felt the improvement initiative results were the way they were, their** overall feelings about the initiative and how it went, any **extenuating circumstances** that led to the result, how **different (or similar)** this improvement initiative was from others they have experienced, and any **additional thoughts** they felt were pertinent to the interview.

The telephone interviews identified that **reasons for failure included management's cancelling of the initiative** (Respondent ID 12956920), and **changing of the target** partway through the initiative (Respondent ID 14410519, 14421756 and 13344621). Because the question that asked how much of the objective's target was reached was the dependent question against which the independent questions were evaluated, the perception of success and failure is critical. Lastly, the supposed failure identified by Respondent ID 14410519 who **complained of a constantly changing objective and a chaotic environment**, was offset when **outside sources viewed their improved process as "best in class"**.



Although the **primary data analysis results were not definitive** in relating to the research question, **several contributions** were made by this research study overall. The **literature review has shown causal linkages** between newly expanding views of our natural world, social theories and emerging management theories and practices such as Complex Adaptive Systems, Organizational Development, Appreciative Inquiry and Systems and Complexity Theory.

**Secondary data** analysis of these causal linkages **show evidence of conscious human intention** and the **potential for its application in management theory** and improvement initiative practices. It has also served to ask the pertinent questions and bring up the elephant in the room.

**Primary data analysis show the limitations of using surveys and interviews of past improvement initiatives** and point to recommendations for further research strategies that can be made more robust, inclusive and definitive.



for participating

You can access the full  
study on [www.human.ca](http://www.human.ca)

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