Ongoing Discussion "Thought Piece"

What World Are We In?

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In the appendix to the Second Edition of his book, *The New Economics*, W. Edwards Deming wrote

> *Business on price tag? We consider here a number of worlds. Any theorem is true in its own world. But which world are we in? Which of several worlds makes contact with ours? That is the question*.[1]

Deming describes three worlds in which a purchasing decision is to be made and points out that the criteria used for making the decision are different in the three worlds. In the first world, when there are no differences between what is supplied (costs of use are the same), choice of supplier will be made on the basis of purchase price. He provides the example of food in a package. Among grocers who offer the product, the one with the lowest purchase price will get the business. In the second world, the product can be supplied as specified by several suppliers, all offering the product at the same price. The supplier who provides the best service will be the right choice. In the third world, the purchase price is not the only cost; there are also costs of use. Some suppliers will propose working with the customer on a long term basis to make improvements and reduce overall costs for the customer. The decision is difficult, but will be based on serving the aim of "continual improvement of quality along with lower [total] costs." With this example, Deming illustrates contexts in which different criteria are relevant to make decisions. There are many situations in which context governs the bases for decision making or the practices selected for use. In the following, different decisions and practices will be discussed and different contexts for making the decisions or using the practices will be identified.

Worlds of Goals and Targets

Stretch goals have been a topic for disagreement among people interested in improvement. Some argue that stretch goals are a good thing in that they help people understand that business as usual will not be sufficient and something extraordinary must be done to solve a problem, achieve an improvement, or stay in business. Others argue that stretch goals are damaging in that they may introduce fear, they may be seen as outrageous and introduce cynicism, and they may introduce gaming, competition and conflict into an organization. Perhaps the two sides have been talking about two different worlds.

In what kind of world could stretch goals be beneficial? First and foremost, those who set the goal acknowledge their responsibility to provide or access the resources needed to achieve the goal. Those who set the goal understand that they have responsibility for system changes that will make the goal achievable. Those who set the goal have identified and done a thorough

[1] W. Edwards Deming, "Continuing Purchase of Supplies and Services," *The New Economics, Second Edition*, MIT Press, 2000.

examination of the barriers to achieving the goal and have concluded that barriers will not prevent even minimal progress toward the goal. That is, the goal is thoughtfully set. My friend Jack Jordan remarked that stretch goals might be best used when a number of constraints exist in practice and the goals provide an invitation to identify and remove the constraints. The environment is one in which it is O.K. to fail; individuals and groups are not penalized or punished for failing to achieve the goal. People involved in trying to achieve the goal have enough self-confidence and investment in their work that they are willing to try. Of course, individuals and groups can set goals for themselves, but they should be set thoughtfully and there should be attention paid to not letting the goal overwhelm wise actions.

In what kind of world would so-called stretch goals be damaging? Those who set the goal see it as the responsibility of others to achieve the goal – they have no responsibility themselves. Those who set the goal fail to acknowledge or even see their responsibility for changing the system so that it is possible to achieve the goal. Those who are expected to achieve the goal will be penalized if they fail to achieve it. Fear of failure inhibits innovative thinking and encourages competition and conflict. Goals are not thoughtfully set. Automobile manufacturing provides an example of this. The executives of an automobile manufacturer decreed that warranty costs for all products be reduced by fifty percent in the next year. Manufacture of a vehicle involves a large and complex supply chain that can contribute to warranty costs. Dealers can play a role in increasing warranty costs. Design of the vehicle and the manufacturing system to produce it takes years. Changes to prevent failures identified in the field can take months to implement. The release schedule rather than readiness can govern sign-offs to go into production so that problems get into the marketplace which should have been fixed before production and sales. All of these things contribute to warranty costs. It was clear to people responsible for designing and producing the products that the goal for reduction of warranty cost had been set without consideration of the many factors that made the goal unachievable. This goal and many others that were equally ridiculous without a complete overhaul of the system had contributed to cynicism and disengagement of the workforce. Cynicism is generated when people understand that the system is designed to produce what it produces and they understand that the people setting the goal should instead be working with them to redesign the system. Although it would not happen in this kind of world, it would have been better to recognize and celebrate the progress made toward reducing warranty cost.

Much of what has been said about stretch goals applies to numerical targets in general. Numerical targets for outcome measures can make those measures into more forceful causal factors. When employees are rated and ranked and even paid on the basis of whether they achieve the targets, systems that are supposed to be designed and managed to serve the needs of customers and other stakeholders can be distorted by competition or at least lack of cooperation. If numerical targets are set and conveyed from the viewpoint of "Let's see if we can figure out how to do this because we need to do it to remain healthy," they may be not nearly as damaging. This is likely only in the first world described above.

Context governs meaning as well as the criteria used to make decisions. In the cases to follow, the same will be true. There is an opportunity to learn by reflecting on the outcome of actions taken based on the theory and the identification of the world. If there were negative consequences, did they come from having misidentified the applicable world or was the theory incorrect for application in these circumstances?

Worlds of Variation

When we treat every event as unique, we lose our ability to gain knowledge or make inferences by studying and learning from variation. We should recognize the commonality of activity and thought which characterizes any process (be it playing golf, managing people, purchasing parts, writing computer software, performing a service, teaching, designing products …) and recognize that variation will exist around that commonality.

Should we always attempt to reduce variation? It seems that variation reduction should be attempted when the costs of reducing variation are judged to be less than the benefits and/or reduced risks to be gained by doing so. The first step is identification and elimination of special causes of variation. The next step is work on the process or system. A relevant concept is the Taguchi Loss Function and Taguchi's idea that there is a loss to society associated with variation away from the desirable value of a characteristic of a product or service. These ideas arose and apply in a world of design and production of products or services.

Other worlds exist in which reduction of variation is inappropriate. One such world is one in which there are risks associated with having no variation. In the biological world it is well known that monocultures carry heavy risks from pathogens. The Irish learned about this world when the potato famine struck them. Monocultures are prevalent in modern industrial agriculture. The same crop is planted over large areas year after year. The aim in that case is to get large harvests while using minimal labor. The risks associated with pathogens are still there. Also, there are risks associated with degradation of soil and water. My friend Jack Jordan suggested a healthcare case in which a kind of variation is needed. Some processes need to be customized for specific customers. Having a special process for blind or for deaf patients or for patients with limited reading skills may be necessary. There can be such a thing as a mental monoculture in an organization. I was acquainted with an organization whose managerial ranks primarily consisted of individuals who had graduated from one college. When their operating environment changed, they found themselves with little ability to adapt and be successful. I am reminded of the statement, "If everyone thinks the same, nobody thinks very much." Perhaps a diversity of education, knowledge, thinking and experience is desirable; no diversity may introduce unrecognized risks. The design firm, IDEO, capitalizes on diversity in that its personnel work on projects in different industries and are able to bring these experiences to new design projects. This, along with sessions for developing ideas with many participants, leads to enhanced ability to innovate.

Other worlds involve costs associated with insisting that there be no variation. A manufacturing company had a very sensible idea: use common parts in multiple products whenever possible. This would reduce engineering and manufacturing costs and would enable reduction of inventories. The company began to work on the use of common parts, but the word "common" took on a life of its own. It became politically advantageous to be able to say you were "doing common." Pretty soon, managers were insisting that widely separated and largely independent parts of the organization that did the same kinds of things had to do those things in exactly the same way. The "common" effort was being carried to a ridiculous extreme. There were several costs associated with this. Many hours were being expended trying to come to agreement about what the common method would be. New forms and software were being developed. One manager suggested that "common" should only be applied where there was a single recipient for multiple streams of input and the commonality requirement should be confined to aspects of the input that had an effect on the recipient's ability to use the input and on the costs of doing so. (A homely early twentieth century example would be a recipient who received handwritten documents from several people. It would not matter whether those people wrote with their right or their left hands. It would matter that the writing was legible.) This manager had a good suggestion. When recipients of the outcomes of a process are only concerned with those outcomes, processes to produce those outcomes can be flexible. However, when lives are at stake, every action in a process may be rigidly defined and should be rigidly followed.

There are contextual factors that should be considered when deciding whether or not it makes sense to work assiduously on variation reduction. There are other factors that need to be considered in order to make wise decisions, but the focus here is context.

Supplier Selection Revisited

We are all aware of the loss of manufacturing in the United States and the enormous increase in purchasing of goods from other countries, particularly from Asia. These changes appear to be primarily based on purchase price including cost of transportation. There are other aspects of cost that need to be considered, however. In a statement of his discussion of World 1 (the world in which business would go to the supplier with lowest price), Deming says "The only difference between the suppliers is the prices quoted. One is lowest, including transportation and the cost of doing business with him."[2]

When purchases are made from distant places and transportation requires considerable time, one of the costs of doing business with the supplier may be associated with heavy dependence on forecasts. A friend worked for a retail company that purchased a large item from Asia that had to be transported by ship. Items transported by ship could take four to seven weeks or more to arrive, depending upon weather and time spent clearing customs in a U.S. port. To allow time for production and transportation before the item was available for sale, the quantity ordered was based on a forecast made long before the item was needed. Demand for the item was seasonal and depended on the weather. One summer was unusually cool so sales of the item were far below the forecasted level. At one of their distribution centers, the item kept arriving and kept arriving until there was no space left on the property to store them. My friend observed how forecast dependence could make purchase on price tag a potentially costly decision. The CEO of a printing company

[2] W. Edwards Deming, "Continuing Purchase of Supplies and Services," *The New Economics, Second Edition*, MIT Press, 2000.

complained about how inventory was a huge problem. Although the company had the plant and equipment to do the majority of its own printing, the decision was made to outsource much of its printing needs to Asia, primarily to save on labor costs. To order from Asia, it was necessary to forecast sales of various products far in advance of introduction of the products into the marketplace. Huge forecast errors appeared to be the source of the costly inventory problem. The inventories of products that didn't sell as forecasted had to be written off. Had the production of these products remained inside the company, adjustments for forecast errors could have been made much more quickly with less total cost. Methods of accounting can contribute to misapprehension of costs associated with alternatives under consideration; estimates of some costs such as labor are made visible while others remain hidden.

Careful thought needs to be put into identifying what world one is in when making a purchasing decision. Too often, those decisions are made under the assumption that World 1 is the relevant world when it is not. The existence of functional silos in organizations contributes to this problem. The relationship with a supplier is typically complex and involves multiple functions. However, purchasing decisions may be made without consideration of the potential effects on other functions of buying on purchase price. The words price and cost should have different meanings in business contexts.

Worlds of Sourcing

A practice that has been heavily used in the past few decades is outsourcing. A particular business activity is contracted out to another organization. The term is also used to refer to public services that are contracted out to for-profit organizations. An example is outsourcing the operation of prisons in a state. Outsourcing is based on the assumptions that having a particular business activity done by an organization whose core business is that activity will result in lower costs because that organization benefits from economies of scale and must have greater expertise in that activity. Organizations use outsourcing for traditional administrative activities such as customer service (call centers), making travel arrangements, employee payroll, invoicing, IT services, training, and other activities. In manufacturing, make or buy decisions are routine and buy decisions can be seen as a form of outsourcing. Some organizations may outsource risk. One form of outsourcing of this type occurs when an organization gives business to another organization when demand exceeds the outsourcing organization's capacity. As a result, the organization to which the excess demand is given experiences alternating periods of feast and famine and has a difficult time staying in business if the excess demand is a large part of their business.

Organizations outsource for many reasons. One is to change fixed costs into variable costs. When the work is done in house, pay for personnel to do the work are part of fixed costs. When contracts are made with external organizations, payments can be made on the basis of the volume of work done. Outsourcing is also done to free up money that can then be used for the core work of the organization. However, an important question is whether the costs associated with not having the activity integrated into the work of the organization are higher than the savings achieved by outsourcing. When the organization and its activities are not seen as a system, these costs may not be taken into account.

In what kind of world would outsourcing an activity make sense? In cases in which the activity requires expertise that has low demand in the organization, it might make sense to outsource the activity. An example is legal services, although huge organizations with high demand for legal services usually maintain their own legal departments. When the activity is disconnected from direct contact with customers and from core business activities, it might be a candidate for outsourcing. For example, landscaping or housekeeping services might be easily outsourced. When the external organization can do work that is demonstrably superior to that which can be done by the organization itself, there may be an argument for outsourcing. In some cases, this has been the argument for contracting out public services to profit-making organizations. The assumption is that the work done by any business organization is superior to that done by government. However, there are cases in which this assumption has been demonstrated to be untrue. In 2013 for example, four contracts with a private for-profit prison operator were cancelled in the same month by U.S. states. The cancellations were due to abuse and neglect of prisoners, falsifying records of staffing to get more money from the state for nonexistent security work, poor food and sanitation, lack of medical care, filth and overcrowding. In December 2008, Chicago's mayor Richard Daley handed over control of Chicago's parking meters to a private corporation in exchange for about $1.15 billion in cash. Problems started right away. The corporation increased meter rates and some meters couldn't handle the number of quarters required to pay the fees. Chicago's inspector general reported that "the process used to award the deal cost the city, 'conservatively,' $974 million."[3] Even if outsourcing an activity makes sense, there is another factor that needs to be considered. Outsourcing can have effects on the frame of mind of employees. They may wonder if their work will be the next to go. This potential effect needs to be taken into account and planned for if outsourcing is considered.

If customers are directly affected by the work to be outsourced, then outsourcing can be a bad idea. One example that most of us have suffered from at least once is outsourcing customer service call centers, particularly to countries in which English is not the primary language. The language difficulties can be a major barrier, but another barrier to good service is that the sources of problems for the customer are located inside the organization in its core business. Although call center personnel can try to help the customer, the sources of the problems are not addressed and more customers will be affected. If there are strong links to core business activities, outsourcing an activity can be a very bad idea. The company that gets the outsourced work can become a competitor. In-house expertise and experience can be lost. Communications may operate more slowly and may suffer from lack of common knowledge and definitions. Consideration of all these issues should precede any decision to outsource.

An interesting example of keeping work in-house is provided by Mike Rother in his book, *Toyota Kata*.[4] Rother describes two routines that have been used in Toyota since the 1950s:

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[3] Reid Wilson, "How Parking Meters Killed Privatization of Midway Airport," *The Washington Post*, September 13, 2013.

[4] Mike Rother, *Toyota Kata*, McGraw-Hill, 2010.

improvement and coaching. Each employee has a coach who helps him to learn the improvement routine. Once the employee has learned the improvement routine, he can become a coach of others. Learning the thinking and methods of improvement is not sourced to a central training agency inside or outside Toyota. Clearly, Toyota's management saw this method of learning as having strong links to the company's core business activities and as being of sufficient importance to invest considerable resources in it. It appears that some of the people who went to Toyota and came back with Lean may have missed a critically important part of Toyota's operations strategy. An excellent article by Atul Gawande discusses the importance and benefits of coaching.[5]

Worlds of Causes

In training people to use the tools of Lean, a favorite topic is finding the "root cause" of a problem and taking action on that cause so the problem will not recur. A favorite tool to use to identify the "root cause" is the Five Whys exercise. A group of people is to ask why five times and take action on the answer to the fifth why question since this is seen as the "root cause." Typically, this activity is to be carried out by people working at the place where the problem surfaced. There have been some issues raised with respect to this method. One of those issues is that the direction of thought a group takes may lead to different "root causes." An example follows. A company does injection molding of plastic parts. To make a particular part, a mold is inserted into a molding machine and plastic is heated and injected into the mold to produce the parts. Production of a particular part has become problematic because the process produces parts with a certain defect. Here are two examples of what might result from a Five Whys exercise:

Example 1

1. Why are we producing so many parts with this defect?
   Because the mold inserts are worn out.
2. Why are the mold inserts worn out?
   They have been used too long.
3. Why have the mold inserts been used too long?
   Because the group that makes the inserts has not provided the replacements we asked for.
4. Why has the group not provided the replacements?
   Our job is low on their list of jobs.
5. Why is our job low on their list?
   They don't recognize that we are unable to meet demand because of this problem.

Example 2

1. Why are we producing so many parts with this defect?
   There is too much variation in important physical properties of the raw material.
2. Why is there too much variation in physical properties?
   Batches of raw material from the supplier are very different.

[5] Atul Gawande, "Personal Best," *The New Yorker*, October, 2011.

3. Why are the batches so different?
   The material specifications are too wide.
4. Why are the specifications too wide?
   Engineering didn't do enough testing before writing the specifications.
5. Why didn't engineering do enough testing?
   They spent so much time on the design that there was little time left before the customer wanted the parts.

In spite of their weaknesses, these examples may illustrate that the result of the Five Whys can depend on who is involved in the exercise and what the particular mind sets of the participants might be. Toyota has emphasized the use of Five Whys should include *go and see*, rather than doing a deductive reasoning exercise in a conference room. However, the mental models of those who go govern what they are able to see. Another criticism of the Five Whys is that the answers to the questions are limited by the existing knowledge of the people involved. For example, the people involved may not recognize that they need the help of technical experts or that their problem is possibly created at some other location or level in the organization. These aspects of problem solving were discussed in an earlier paper.[6]

In his book, *Business Dynamics*, John Sterman writes about a common approach we use to solve problems:

> "We assess the state of affairs and compare it to our goals. The gap between the situation we desire and the situation we perceive defines our problem. For example, suppose sales of your organization were $80 million last quarter, but your sales goal was $100 million. You then consider various options to correct the problem. You might cut prices to stimulate demand and increase market share, replace the vice president of sales with someone more aggressive, or take other actions. You select the option you deem best and implement it, leading (you hope) to a better result. You might observe your sales increase: problem solved. Or so it seems. The system reacts to your solution: As sales rise, competitors cut prices, and sales fall again. Yesterday's solution becomes today's problem. We are not puppet masters influencing a system out there – we are embedded in the system… There is feedback: The results of our actions define the situation we face in the future…we often do not understand the full range of feedbacks operating in the system… As our actions alter the state of the system… Our actions may also trigger side effects… Unanticipated side effects arise because we too often act as if cause and effect were always closely linked in time and space. But in complex systems… cause and effect are often distant in time and space…"[7]

[6] See pages 4 and 5 of "Transformation – You Can't Just Do One Thing," IN2IN Ongoing Discussion Thought Piece, January, 2013.
[7] John D. Sterman, *Business Dynamics: Systems Thinking and Modeling for a Complex World*, McGraw-Hill Higher Education, 2000.

So one can conceive of at least two worlds in which the Five Whys activity might be used based on the belief that there is **a** root cause. One is a world of simple direct (or no) relationships among the components of the context in which the problem occurred and no effects from outside that particular context. That is, the context is a closed system with simple internal relationships and causal structures that are limited to short chains (five or fewer components). The other is a world of complexity with numerous interdependencies, nonlinear relationships, and effects produced outside the local context and in the past. It seems clear that the Five Whys might be useful in the first of those worlds. But it is questionable whether that world actually exists in a business organization. To posit that a single root cause exists and can be correctly identified in the second world seems to be an incorrect position to take. When "problem solving" is confined to the local level, no work is done to trace and identify other factors that may have contributed, and no consideration is given to potential effects of the proposed solution now and in the future, the resources of the organization are not used wisely.

A better approach to identifying the causal factors that produce a particular effect is to use Ishikawa's cause and effect (fishbone) diagram. The fishbone diagram provides an opportunity to recognize that there may be many possible causes, not just one. However, recognizing interdependencies among causal factors and dynamic effects requires more thought. Shewhart and Deming's use of the notions of common causes and special causes (chance causes and assignable causes according to Shewhart) supported by run charts and control charts as an aid to understand problems and learn for improvement offers a broadly applicable and useful approach. However, their effectiveness will also be limited if their use is confined to lower and local levels in an organization.

Worlds of Relationships

Should our relationships be competitive or cooperative? Google defines the word principle as "a fundamental truth or proposition that serves as the foundation for a system of belief or behavior or for a chain of reasoning." Competition appears to have been raised to the status of a generally applicable principle in the U.S. Some even appear to believe that competition is necessary and sufficient for excellence. That is, to have excellence, competition is necessary and excellence will result if there is competition. Counterexamples to the first idea are numerous. Was Albert Einstein in competition with anyone? What about Charles Darwin? Carl Fabergé? Leo Tolstoy? Counterexamples to the second idea occur on tennis courts and golf courses every weekend. If one could call the oligopoly operated by the American automakers competitive, the events that occurred when Japanese automakers entered the American market provide another counterexample.

Deming said many times that businesses should cooperate on common problems and then compete. One example of cooperation on common problems is the establishment of voluntary standards. Deming devotes Chapter 10 of his book, *Out of the Crisis*, to that topic.[8] In it he provides many examples, including the following: "Trains move across the country

[8] W. Edwards Deming, *Out of the Crisis*, MIT Press, 2000.

from one railway to another, with no unloading and reloading because of different gauge or different air pressure for brakes. A car may in fact move from Halifax through Montreal, Toronto, Buffalo, Philadelphia, Mexico, and up to Vancouver, over a number of routes, along with other cars … as a routine matter… Standardization is something that all of us take for granted. We ship an electric washer across the country with our household goods with never a conscious thought but that it is sure to meet the same voltage and current wherever it is plugged in… Competition for price and quality is not stifled by standardization. On the contrary, as Shewhart often remarked, building-codes that differ ever so little from one country to another in Europe, or even from city to city anywhere, by obstructing mass production, are more effective than tariff walls at throttling mass production and raising costs." As climate change has more and more devastating effects, cooperation among competitors likely will be increasingly required.

Relationships inside businesses can also be competitive. Some of these kinds of relationships are competitive by their nature. When the resources available for various projects are limited, then there will be competition for those resources. But competitive relationships can be established artificially in the belief that they will lead to better outcomes for the organization. Zero-sum games for rewards and recognition are examples of artificially established competitive relationships that can cause damage to both the individuals involved and the organization. In his book, *The Penguin and the Leviathan*, Yochai Benkler writes "…we need systems that rely on engagement, communication, and a sense of common purpose and identity. In other words, organizations would be better off helping us to engage and embrace our collaborative, generous sentiments, rather than assuming we are driven by self-interest… there are settings where trying to combine systems based on self-interest – such as material rewards or punishment – will backfire and lead to less productivity than an approach oriented solely toward social motivations."[9] He goes on to say, "Given that it is nearly impossible[10] to have a system that can perfectly monitor and reward or punish every aspect of performance we care about, we need to rely on intrinsic motivation instead. And to be intrinsically motivated, people have to believe that the system they are working in is fair: that its outcomes are fair, that its processes are fair, and that others who have influence over them in that system intend to treat them fairly. Fairness is a precondition to productive collaboration… When you do not know where tomorrow's competitor will come from, and what they will know that you don't, you have to continuously learn and experiment. And this cannot be done through command and control nor through incentive schemes (however well refined they may be)…"

Worlds of Interests

Sixty years ago, John Maynard Keynes wrote, "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is run by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences are usually the slaves of some

[9] Yochai Benkler, *The Penguin and The Leviathan*, Crown Business, 2011.
[10] Benkler should say impossible, not just *nearly* impossible.

defunct economist."[11] In a very interesting paper, Sumantra Ghoshal argues that business school academics have, through publication and teaching, provided the arguments that have led to "many of the worst excesses of recent management practices," such as Enron and Tyco and "ruthlessly hard-driving, strictly top-down, command-and-control focused, shareholder value-obsessed, win-at-any-cost business leader[s]" such as Chainsaw Al Dunlap and Dennis Kozlowski of Tyco.[12]

According to Ghoshal, current management theories taught in business schools have excluded ethics and morality. This has occurred in part because of an attempt to make business studies a science. As a result, the role of moral or ethical considerations in the practice of management has been denied. Ghoshal discusses two contributors to the current state: the Chicago School of economists led by Milton Friedman and agency theory originated by Michael Jensen and William Meckling. Ghoshal quotes Friedman as follows: "Few trends could so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible."[13] In courses on corporate governance grounded in agency theory, Ghoshal says "we have taught our students that managers cannot be trusted to do their jobs – which, of course, is to maximize shareholder value – and that to overcome 'agency problems,' managers' interests and incentives must be aligned with those of the shareholders by, for example, making stock options a significant part of their pay… we have preached the need for tight monitoring and control of people to prevent 'opportunistic behavior…'" Ghoshal asks, "Why don't we actually acknowledge in our theories that companies survive and prosper when they simultaneously pay attention to the interests of customers, employees, shareholders, and perhaps even the communities in which they operate?...The honest answer is because such a perspective cannot be elegantly modeled – the math does not exist. Such a theory would not readily yield sharp, testable propositions, nor would it provide simple, reductionist prescriptions. With such a premise, the pretense of knowledge could not be protected. Business could not be treated as a science, and we would have to fall back on the wisdom of common sense that combines information on 'what is' with the imagination of 'what ought to be' to develop both a practical understanding of and some pragmatic prescriptions for 'phenomena of organized complexity' that the issue of corporate governance represents."

A quote from Deming in *The New Economics* is relevant here:

> *The aim proposed here for any organization is for everybody to gain – stockholders, employees, suppliers, customers, community, the environment – over the long term. For example, with respect to employees, the aim might be to provide for them good*

[11] John Maynard Keynes, *The General Theory of Employment, Interest and Money*, Harcourt Brace Jovanovich, 1953.
[12] Sumantra Ghoshal, "Bad Management Theories Are Destroying Good Management Practices," *Academy of Management Learning & Education*, 4(1), 2005.
[13] Quote taken from Friedman, 40th Anniversary Edition of *Capitalism and Freedom*, University of Chicago Press, 2002.

management, opportunities for training and education for further growth, plus other contributors to joy in work and quality of life.

In his book, *The Democratic Corporation*, Russell Ackoff discusses the role of the corporation in society and quotes Igor Ansoff on the stakeholder theory of the firm: "This theory maintains that the objectives of the firm should be derived from balancing the conflicting claims of the various "stakeholders" in the firm: managers, workers, stockholders, suppliers, vendors. The firm has a responsibility to all of these and must configure its objectives so as to give each a measure of satisfaction. Profit which is a return on investment to the stockholder is one of such satisfactions, but does not receive special predominance in the objective structure." Ackoff goes on to say, "From society's point of view, an obvious function of corporations is to *produce wealth*. What is not so obvious is that corporations also have the social function of *distributing wealth*. They do so in a number of ways, including compensating employees for work, paying suppliers for the goods and services they provide, providing dividends to shareholders, paying taxes and interest on money borrowed, and so on."[14] Clearly, Deming has taken the stakeholder view of the firm in his proposed aim.

An argument made that management has the obligation to maximize shareholder value is based on the idea that shareholders, in exchange for their liability being limited to their equity investment, have the last claim on the profits of the corporation. They are entitled to only what is left after all other claims have been satisfied. Thus, management must ensure that all the profits aren't consumed first by those with prior claims. (Jensen and Meckling's agency theory includes a view that shareholders are the only constituency that carries risk so their returns must be maximized.) Note that the argument is made in financial terms. But suppose that in maximizing shareholder value, employees' pay is held as low as possible. If employees have any claim on the profits of the corporation, that claim has been reduced in order to maximize shareholder value. In a December 8, 2013 letter to the CEO of Dollar General Corporation, Ralph Nader wrote: "Dollar General's treatment of low-wage workers is shameful. A survey of workers through GlassDoor.com has shown that most store associates receive, on average, significantly less per hour than the living wage in most cities where Dollar General operates. For example, a living wage for single, childless workers in the Goodlettsville stores near your headquarters is estimated to be $9.51, but most sales associates and cashiers receive below $8 an hour. Associate store managers are not doing much better, receiving – according to the survey – only $9.76 per hour, which is much lower than the living wage for families in most areas across the country."[15] Nader ends his letter with a quote from Henry Ford: "If you cut wages, you just cut the number of your own customers. If an employer does not share prosperity with those who make him prosperous, then pretty soon there will be no prosperity to share. That is why we think it is good business always to raise wages and never to lower them. We like to have plenty of customers." In his book, *Bad Pharma*, Ben Goldacre writes, "… the pharmaceutical industry overall spends about twice as much on marketing and promotion as it does on research and development. At first glimpse, this seems extraordinary, and it's worth mulling over in various contexts. For example, when a drug company refuses to

[14] Russell L. Ackoff, *The Democratic Corporation*, Oxford University Press, 1994.
[15] Obtained from http://www.tennessean.com/assets/pdf/DN216192129.pdf

let a developing country have affordable access to a new AIDS drug it's because – the company says – it needs the money from sales to fund research and development on other new AIDS drugs for the future. If R& D is a fraction of the company's outgoings, and it spends twice as much on promotion, this moral and practical argument fails to hold water."[16] In neither case can one cite maximization of shareholder value as the sole source of these behaviors, but they certainly illustrate less concern for other stakeholders.

There are two worlds represented by the stakeholder view and the shareholder value maximization view. According to Ghosal, the shareholder value maximization view has been created to enable pseudo-scientific theories that can yield mathematical solutions. If one accepts the earlier quote from Friedman that corporate officials have no social responsibility other than to make as much money as possible for stockholders as a characterization of a world, it is a world of self-interest that ignores ethical and moral considerations of other stakeholders. The other world characterized by the stakeholder view recognizes the contributions employees, suppliers, the community and government make to the creation of value by a business. That world recognizes a richer view of the motives and interests of human beings and the possibility that they may actually wish to make a contribution to their work and their world. If Ghoshal is correct in his argument, then the world of self-interest characterized by the shareholder value maximization view that has governed management theory for the last several decades will continue to contribute to immoral and unethical behavior and lack of benefit to anyone including shareholders. It may be that the world of exclusive self-interest would not exist in business without the aid of management theorists and economists seeking to be seen as scientists.

Seeking Improvement

When improvement is sought, the first step must be to understand the world one is in and what theories might be applicable to bring about the desired improvement. If the improvement involves changes to the thought and behaviors of people (as it usually does), culture must be taken into consideration. In a business organization with strong functional separation, there may not be one single organizational culture; instead there may be very different functional cultures. In organizations formed by mergers, there may be big differences in the cultures that are carried over into the newly formed organization. One size fits all may not be an effective strategy for bringing about change in situations such as these. If one seeks improvement, there may need to be different approaches designed for the different cultures one expects to encounter. Structural differences also need to be considered. Different approaches may be needed for large, complex units and small, relatively simple units. My friend Ian Bradbury observed that employees' skills, knowledge, and cognitive development are also relevant to whether a given approach to improvement is likely to be effective. The individuals one seeks to influence are the customers of the efforts to bring about change. Development of a strategy for change starts with understanding those customers' needs, what it will cost them to change and how they will benefit from the change.

[16] Ben Goldacre, *Pad Pharma: How Drug Companies Mislead Doctors and Harm Patients*, Faber & Faber, 2013.

The worlds discussed in this paper and others can provide opportunities for improvement by carefully considering the world that currently exists and the theory that could be applied to bring about improvement in that context. Another possibility is to seek to move from the current world to another. An example is the possibility of moving from the world in which goals and targets are damaging to the one in which their effects are not likely to be as damaging. The point here is that things are not as simple as they might seem to be. Context affects meaning and determines what theories and methods are likely to produce improvement. A good understanding of context is needed to be effective in bringing about improvement.

Biography

Gipsie Ranney is an international consultant to organizations on management, quality improvement and statistical methodology. She was a member of the faculty of the Department of Statistics at the University of Tennessee, Knoxville for fifteen years. She was a co-founder of the University of Tennessee's Institute for Productivity through Quality, and she developed and conducted numerous seminars on quality improvement. She served as Director of Statistical Methodology for General Motors Powertrain Group from 1988 to 1992. She co-authored *Beyond Total Quality Management: Toward the Emerging Paradigm,* published by McGraw-Hill, and contributed to *Competing Globally Through Customer Value*, published by Quorum. She has published papers on quality improvement and statistical methods. She was the first president of the W. Edwards Deming Institute. The American Society for Quality awarded her the Deming Medal for 1996, "for outstanding contribution in advancing the theory and practice of statistical thinking to the management of enterprises worldwide." Gipsie holds a B. S. in Mathematics from Duke University and a Ph.D. in Statistics from North Carolina State University.