# Engines of Disharmony

By Dr. Eliyahu Goldratt

* The forward to "The Choice", the Japanese edition

All my work is based on the conviction that the underlying concepts and methods used in the hard sciences can, and should, be applied to the social sciences. One of these underlying concepts, as was first put by Sir Isaac Newton, is that reality is harmonious with itself (a concept which is explained in depth in this book). Hearing that Japanese culture is heavily based on the importance of harmony – Wa – I expected that, relative to America and Europe, my Theory Of Constraints would be more rapidly accepted in Japan.

To my delight this expectation was fulfilled, but something that I didn't expect happened as well. The feedback from Japan forced me to dramatically expand my grasp of the concept of harmony. This demonstrated to me the extent to which my understanding of my own theory was limited. Let me clarify the above by one example out of many.

One of the Theory Of Constraints applications that is rapidly expanding in Japan is the application for project environments, called Critical-Chain-Project-Management or CCPM. What typifies project environments is a high level of uncertainty. It is no wonder that project environment's core conflict is that, on the one hand to be reliable the deliverer must include more safety in time estimates, but on the other hand to be quick the deliverer must include less safety in estimates. The CCPM application is based on the realization that the deliverer does include enough safety (actually, too much safety) but the safety time is wasted. The devastating mistake in project environments is the common practice of using time estimates as a base for judging performances.

This common practice is forcing people to pad each task's time estimate with hefty safety (see detail explanation below) while the most basic knowledge of statistics points to the fact that safety should not be inserted at the task level but at the project level. For me, this apparent mismatch between logic and mathematics on the one hand and the common practice on the other is disharmonious.

Of course, correcting such a fundamental disharmony leads to much better performance in any project environment where CCPM is used; a dramatic increase in the percent of projects completing on time, a significant reduction in the overall projects' lead-times, a major reduction in the hours invested in the projects and improvement of the quality are common testimonials. The same type of testimonials come also from Japan but there is a distinct difference in emphasis. Maybe the best way to introduce it is through a quote from the introduction to the second book on CCPM written by Yuji Kishira:

Although there are multiple cases documenting "several hundred million yen profit increase in a few months", many of them don't regard making money itself as the success. Actually, many readers' comments are along the following lines: "Of course I am surprised and happy with the dramatic profit increase in such a short time. But far more important for me is people's personal and professional growth. Widely spreading teamwork, motivation increasing across the company: I have always wanted our company to be like this!"

When I developed the CCPM solution I concentrated on trying to decipher the underlying harmony of the project environment itself – zooming in on our erroneous assumption that caused the core conflict that destroyed that harmony. But then, such feedback forced me to look from a different angle. Rather than looking for the harmony in the situation, in a sense the same harmony one is looking for in art, I started to look on the harmony between people. I started to examine what causes inharmonious relationships between people and why the CCPM solution enables the same environment to enjoy real harmonious relationships.

Once I started to look for it, it was relatively easy to decipher. Put yourself in the shoes of a person who is in charge of delivering a task in a project. Even in the western industry the allotted time to complete this task is not dictated from above, rather your boss approaches you and asks for your time estimate. Of course, being experienced and therefore well aware of the uncertainties involved in doing the task, you have to consider that not everything will go smoothly, that you will encounter some difficulties or even, more likely, some distractions. "It depends…" you try to explain to your boss.

But such an answer is not good enough, your boss insists on a numerical answer. Now, would you give an estimate that you have a high chance (a chance of, let's say 50 percent) of missing? Not in the western culture. My impression is that being regarded as a reliable employee is even more important in the Japanese culture. So, being pressed for a numerical time estimate you don't have any choice but to add safety to your estimate; to choose a number you think you have a reasonable chance of meeting (over eighty or over ninety percent depending on your personality and your company culture).

After some negotiation with your boss you settle on a number (you are aware of the negotiation and probably took this into account when you made your estimate). Now take the more common case, where the "surprises" were not too big, the case that has about a 70% chance of happening. In this case you will be able to finish considerably ahead of your padded time estimate, and proudly announce early completion of your task. But, what will be the repercussion the next time an estimate is demanded from you? Isn't it more prudent to invest more time to do a thorough job, to make sure that everything is properly checked? In short, to use all the time that is available rather than rushing to deliver ahead of the committed time.

Take the more global look on the situation. With such behavior, what type of relationships, how much mutual trust, do you expect between management and their direct employees?

Now put yourself, for example, in the shoes of a project leader. You want to do a good job, to make sure that your project will be on time, within budget and delivering all the promised content. But, in a multi-project environment you are not in charge of the people who do the actual work. They also are working on other projects. Your only way is to approach their boss, a resource manager, and to convince him to put his people on your project. How are you going to do it? You must give him the impression that your project is the most urgent or most important project. Bear in mind that all other project managers are doing the same. What type of relationships, how much mutual trust, do you now expect between resources and project managers?

You are now a top manager. It is actually your responsibility that the projects your company commits to are delivered on time. You are well aware that projects have a tendency to slip and therefore you demand periodic progress reports. But due to the common practice used to monitor projects' progress the real problems are masked. As a result, more often than not, a project that was reported as moving on track, all of a sudden starts to slip and then turns into major problems. What type of relationships, how much trust, do you expect between top and middle-level management?

The CCPM solution removes the need for safety at the task level while providing clear priorities and realistic progress information. It's no wonder that in a nation that emphasizes the importance of harmony, the unavoidable result of implementing CCPM, the result of removing the engines that foster disharmony, is dramatic change into an environment where harmony flourishes among all employees. The human relationships emphasis that was coming from Japan forced me to realize that revealing the inherent harmony of a situation and removing the conflicts that prevent it from blooming into fruition are the keys to reach the much more important aspect of harmony – harmony between people. I become increasingly more sensitive to that aspect.

That sharpened sensitivity brought me to a conclusion that, I think, most Japanese will not agree with. I'm starting to be, more and more, of the opinion that the eagerness to have harmony, an eagerness that separates Japan from any other nation I know, is paradoxically the number one reason that the desired harmony is not always achieved. It is also the number one reason why it is so difficult for me, as a foreigner, to understand Japanese people. It seems to me that the eagerness for harmony is translated into a deep desire and mode of behavior that try to prevent confrontations.

Preventing confrontations is certainly good but not when it is done at the expense of solving the existing conflicts. When conflicts are not resolved but instead are pushed

under the carpet they do not disappear. They grow. They create more and more frustration. And frustration always seeks an outlet. Sometimes, a drastic outlet.

If these speculations of mine are somewhat correct then this book is particularly important to Japanese people. This book is not about project management, but one of the book's most important lessons is how one prepares oneself to properly address conflicts; without confrontation and without repressing the existence of the conflicts.

## Dr. Eliyahu Goldratt (1947-2011)

Internationally recognized leader in the development of new business management philosophies and systems, Dr. Goldratt's work is carried out by consultants and educators around the world, and utilized by many of the world's largest corporations, including IBM, Procter & Gamble, AT&T, NV Philips, ABB and Boeing. Unconventional, stimulating, and "a slayer of sacred cows," Dr. Goldratt exhorted his audience to examine and reassess their business practices with a fresh, new vision.

THE GOAL, his best-selling business textbook written in novel form, illustrates Dr. Goldratt's Theory of Constraints (TOC), an overall framework for helping businesses determine: what to change —not everything is broken, what to change to —what are the simple, practical solutions, and how to cause the change — overcoming the inherent resistance to change. Dr. Goldratt wrote numerous books on related topics, including IT'S NOT LUCK and CRITICAL CHAIN. His book, THE CHOICE, rapidly became the #1 bestseller in Japan. Dr. Goldratt was a frequent contributor to scientific journals, magazines and business publications.

Dr. Goldratt was the Founder and Chairman of Goldratt Consulting, which continues to take the Theory of Constraints practices to new heights with VIABLE VISION, a platform to improve business productivity and profitability. Viable Vision provides the strategy and specific tactics that deliver unprecedented performance and bottom-line results in all aspects of a company's operation.

## Goldratt Consulting

Goldratt Consulting helps companies to immediately accelerate cash flow and profits, and with the same actions begin to strengthen the company for exponential growth.

Our clients enjoy substantial increased liquidity within weeks and ongoing growth in profitability. Our approach is based on Theory of Constraints (TOC) - the time tested, logical, common sense solutions introduced by Dr. Eli Goldratt 25 years ago in his book, *The Goal*, which is still a best-seller today*.

TOC has been implemented in nearly every function in companies from $25 million family operations to top Fortune 500, in product and project manufacturers, and companies with simple and complex distribution networks. TOC is taught in hundreds of colleges and universities, and much has been published on the subject.

Dr. Eli Goldratt founded Goldratt Consulting as part of The Goldratt Group. The company is headquartered in Israel and represented in every continent. Our leadership roster contains the most highly renowned TOC experts in the world.

Goldratt Consulting is not a typical consultancy.
- We only work with companies that commit to reaching a level of performance they had previously considered unattainable.
- We only implement solutions that bring such performance without compromising long term for short term or one stakeholder group for another (shareholders, management, employees, customers).
- Instead of hourly or daily rates, our fees are based on the mutually agreed financial value that is generated through our efforts.
- The vast majority of payments are set to the client reaching specific financial performance milestones, which begin when the "previously considered unattainable" performance is surpassed.

If you would like to learn how Goldratt Consulting can help your business reach new heights of performance, contact us to schedule a free initial evaluation with a Goldratt Executive. www.goldrattconsulting.com