

ORGANIZATIONAL FLEXIBILITY

Back in 1994, shortly before retiring as chairman and chief executive officer of Lucas Industries, Tony Gill addressed his shareholders and Lucas employees, with the following words:

"We aim to ... develop, through commitment to innovation, communication, training and successful management of change, a Lucas [Industries] culture which encourages and rewards enterprise, professionalism and flexibility at every level."

Mr. Gill could well pride himself that his was not merely a theoretical statement. In that year, the UK based company employed some 46,000 people, and sold for over four billion dollars, at a profit. A couple of years after the above statement was made, Lucas merged with Varsity, to become LucasVarsity plc, provider of technologically sophisticated systems and equipment to the global automotive and aerospace industries.

It had indeed been the culture of that company throughout the years, as I had personally witnessed back in the 1960's.

Joining Lucas Industries in 1964 as a young engineering graduate, I was rapidly becoming aware of the **flexibility** required at every level. Working on the development of diesel fuel injection pumps, I had witnessed the changing demands impinging upon the design and development teams. Customers, for example, - world leading diesel engines manufacturers - wanted their products with ever better performance characteristics, smaller size, less weight, and complying with the latest government regulations for pollution control. I remember one occasion, when the annual assessment sessions with the boss took place, I lost heavy credits for the simple reason of not having been cooperative and flexible enough when asked to move, at short notice, from one major task to another. **Rapid adaptability to changing demands became a must at Lucas.**

I had resisted the sudden switch of priorities. It had cost me a painful delay in receiving a salary rise. Thus grew in my mind the awareness of the importance of **flexibility** in industrial business organizations.

Years later, in Israel, when I led the production of advanced electronics systems at Elta Electronics Industries, **the need for adaptability to changing**

environmental conditions became so acute, that a fundamentally new approach to life had to be adopted by me in order to meet the pace of events.

Human relations, for example, became an increasingly important factor in all organizational processes.

Personal flexibility on the part of the manager was essential for coping with organizational problems, like reacting fast to the onslaught of competition, or to shortage of financial and technological resources in the face of surging customer demand.

I took part in organizational changes occurring at increasing rates at Elta. As a subsidiary of Israel Aircraft Industries (IAI), the largest, high-tech corporation in Israel, Elta was developing, manufacturing, and marketing hi-tech electronics systems and equipment for the world's defense customers and the civil aviation market. When demand for military equipment slumped, as a result of drastic defense budget cuts, IAI felt the repercussions, along with most other defense contractors in the USA and Europe.

It was at IAI that one had to go through the agonizing process of restructuring, of changing jobs, of having to learn quickly new skills, of having to tell people, loyal subordinates, they were no longer needed Going through this personally difficult process, while bearing responsibilities of a manager, the concept of *organizational flexibility* became ever so meaningful. **Through personal managerial experience, I became convinced that organizational flexibility, in industrial settings, really depended first and foremost upon *personal* flexibility of the individual manager, mainly at the middle-management levels .**

We thought we had a clear vision of our responsibilities, but did we possess the tools?

Recently, recalling those events while talking to a friend and business partner, he produced a book by Kathryn Harrigan, who in 1985 wrote about *Strategic Flexibility*:

"The barriers to flexibility can be asset-specific, but they are more likely to be mental. Too many managers refuse to face the ugly reality that they are in a sick business or that their firm's strategic posture is simply wrong. Even when it comes to phasing out their no longer profitable products or product lines, many otherwise well managed companies hang on for too long. The worst offenders are plant or branch managers who recognize the trouble but cannot face giving up their own positions or laying off loyal workers. Thus bad news is kept from top management for as long as possible "

"Strategic flexibility," I mumbled to my partner, "easier proclaimed than gone through in person, my friend . . ." A flash of reflection brought me back to one April morning, back in 1975. I remember having sat in front of the well-admired, new President who had told me that, as a result of the major reorganization, my department would be split up and the people dispersed. As head of that department, I would be offered another, yet lower job in the company. I remembered the feeling of cold sweat running down my back listening to the matter-of-fact words. It had not been easy, for I had refused the offered job. For days, weeks, I had not been able to accept the verdict and had tried, in vain, to reverse the situation. I had strolled from one office to the next, seeking support from colleagues. But their response had been either disappointing in its apathy, or futile in its advise. Some people had shaken their heads with sympathy, others could hardly conceal their glee. So there I was,

exiled to one of the “cold-room” offices at the end of the long corridor, my self esteem evaporating as the days had gone by. I had been too bewildered to take any sensible action, too ignorant of how to deal effectively with my hitherto unfamiliar predicament.

Emotional salvation had come from an unexpected source. One evening, over the dinner table, our older son Gadi, then 10 years of age, listening to my lamentations, feeling my unhappy mood, had asked innocently: “Dad, why don’t you just plow on?” Till this day I cherish that compassion. Because listening to those simple words, like with a wand of magic, all anxiety had vanished, and the road seemed ever so lucid and clear ahead.

My friend commented knowingly: *“Change and organizational flexibility*, then, is not an entirely vague concept for you”. “You bet!”, I replied, still quite distraught by the memory of those bleak days.

My friend went on, seemingly oblivious of my tinge of emotion: “Think about how much personal agony you and the others in the company could have spared

had you adopted anything like the wide, participative involvement approach we now practice within the organizations”.

Suddenly it dawned on me. Had I been more involved in the process of change, more aware of the specific needs of Elta, at that time, to reorganize into a customer-oriented structure, understanding the vital importance of financial cutbacks, agreeing on taking a share of the burden, voicing my suggestions at meetings, assuming responsibility for implementing decisions reached in a truly democratic fashion, I would have, no doubt, been much, much more cooperative and committed!

At IAI, strategic planning was a routine procedure, frequently involving wide circles of management. But only at first. When *updating* of plans was called for, there was usually little time for long discussions into the night.

Alas, by that time the chief executive no longer could afford the time for consensus-building, democratic exercises. Summoning his closest aides he would rehash the strategy, informing everyone afterwards.

Naturally, those not taking part in the strategy-update sessions gradually lost their motivation and inner commitment. The mood of alienation was widespread. You could hear people mumbling : *'If they revised the plan without us - let them implement it!'* 'Them' being the Chief and his inner circle; us being the managers charged with execution of the company strategy. Human nature works that way!

This manifested itself mainly at the middle management levels, as a case study performed at one division, MHT, has shown. MHT is IAI's central training and technical publications division, providing training and vocational education for all of IAI's customers, and employees.

Using my responsibilities at MHT as a lever, and supported by MHT's general manager, I initiated a pilot project, which deserves some fuller description in the pages that follow.

The pilot project undertaken at MHT began in 1991. The business climate on the international market was volatile, and uncertainty prevailed. IAI was in the midst of a prolonged restructuring process, which began in 1987, the year the Israel government discontinued IAI's prestigious LAVI fighter plane program. Profits were marginal, cash was scarce, revenues stopped growing,

and people were laid off in large numbers. At the same time, the entire corporation became deeply committed to Dr. Deming's Total Quality Management (TQM) process. His teachings were instilled throughout the company, from the chief executive down.

In 1991, MHT just completed a thoroughly-executed process of strategic planning, wherein company values and longer-term objectives were established, using a process of management group-discussions, and decisions based on a wide management consensus. Measurement systems were installed, and performance characteristics were measured continually. Periodic, formal upward reporting routines were established, including the procedure of MHT's general manager reporting directly to IAI's chief executive and president.

Ardently pursued, and fully committed, the management at MHT believed that expected business results would not be long in arriving, and would be significant. With such expectations, little wonder that there was disappointment that the rate of progress did not match the pace of events on the market.

The pilot project at MHT was designed in line with the TQM program adopted at the IAI corporation. One specific company goal, called *continuous*

customers' satisfaction, was selected for this specific case study. The measurement and monitoring procedure, implemented over a period of 27 months, from 1991 through 1993, is described in Appendix B of this paper. Generally, results fell short of expectations. Despite considerable management commitment, encouragement and support, customer satisfaction indicators improved only by less than 10 percent. **This rate of adaptability to requirements on the market was considered by MHT's management as totally inadequate**. So, it was decided, late in 1993, to embark upon an entirely new approach. **Attention was focused on the individual manager.**

The new approach derived its inspiration from results achieved by Jack Welch, the eminent chairman and chief executive of General Electric Corporation. In his interview with the Harvard Business Review staff (1989) he was asked what made a good manager. Jack Welch replied:

" I prefer the term business leader. Good business leaders create a vision, articulate the vision, passionately own the vision, and relentlessly drive it to completion. Above all else, though, good leaders are open. . . They're informal. They're straight with people. They make a religion out of being accessible. They never get bored telling their story.

Real communication takes countless hours of eyeball to eyeball, back and forth. It means more listening than talking. It's not pronouncements on a videotape, it's not announcements in a newspaper. It is human beings coming to see and accept things through a constant interactive process aimed at consensus. And it must be absolutely relentless. That's a real challenge for us. There's still not enough candor in this company. [by candor] I mean facing reality, seeing the world as it is rather than as you wish it were. We've seen over and over again that businesses facing market downturns, tougher competition, and more demanding customers inevitably make forecasts that are much too optimistic. This means they don't take advantage of the opportunities change usually offers. Change in the marketplace isn't something to fear; it's an enormous opportunity to shuffle the deck, to replay the game.

Candid managers - leaders - don't get paralyzed about the 'fragility' of the organization. They tell people the truth. That doesn't scare them because they realize their people know the truth anyway.

We have had managers at GE who couldn't change, who kept telling us to leave them alone. They wanted to sit back, to keep things the way they were. And, that's just what they did - until they and most of their staff had to go. That's the lousy part of this job. What's worse is that we still don't understand why so many people are incapable of facing reality, of being candid with themselves and others."

MHT's general manager, [being an example for candor himself], and some of his colleagues on the management team, searched for some time for a suitable

method of enhancing the **individual flexibility, cognitive powers, and learning capabilities** of leading professionals in the company, from the general manager down. As it turned out, the best method available **was Feuerstein's Instrumental Enrichment program** (1980; 1984).

But before embarking on this program, an essential prerequisite had to be achieved: **Creating a climate of candor and openness in the organization.** By setting self examples, the general manager, and top managers, instituted open channels of communication and critique, through their everyday behavior, and by a process called *upward appraisal*. The entire process is described in Appendix C, showing results of measurements executed first in 1993, and a second time in 1995. *Upward appraisal* involved assessments of the manager's qualities and performance as considered by his/her subordinates. Independent of this appraisal, the management team established a scale defining the relative importance of each of those managerial qualities and performance characteristics in terms of their influence upon the company's eight established *values*, namely:

1. *Profitability*
2. *Continuous customer satisfaction*
3. *Quality of process & product*

4. *Congenial work place*

5. *Professionalism*

6. *Productivity*

7. *Innovation*

8. *Team-work and integrative effort.*

The obvious objective was for the manager to obtain a critical review of his/her performance characteristics, as perceived by his/her subordinates, and then examine how these specific results match with the relative importance of each characteristic in terms of the company's *values* or goals. **Not only did this process in itself enhance openness to criticism, but it also provided the manager with a self-improvement tool by which individual progress and personal growth could be measured and navigated.**

The realization that people could modify their thinking capabilities, and achieve dramatic improvements in mental powers, originated in **Feuerstein's Theory of Structural Cognitive Modifiability** (SCM; 1990), and from his work on **Mediated Learning Experience** (MLE; 1991).

In order to verify the efficacy of this approach, MHT undertook to apply Feuerstein's Instrumental Enrichment program, and review the results at MHT. In 1994, teams of managers and instructors, including the general manager, (and I) participated in a 90-hour Instrumental Enrichment (IE) program. Taking advantage of the fact that Professor Reuven Feuerstein, who created the IE program, lives and works in Israel, MHT could enter into a cooperative agreement with him and his research institute [called the International Center for the Enhancement of Learning Potential, having its headquarters in Jerusalem].

Feuerstein's theory of SCM and MLE, together with his applied systems of Instrumental Enrichment, the dynamic assessment method called LPAD [Learning Propensity Assessment Device], and the Shaping of Modifying Environments - are summarized in sub-section D below.

The importance of organizational flexibility for long-term survivability has been articulated by eminent industrial leaders over the recent years.

The connection between organizational flexibility and personal flexibility of the incumbent managers - at middle-management levels was the subject of this paper.

We have defined flexibility as the rate and intensity at which an organism adapts to changing environmental conditions .

We have shown how a business unit could well judge whether its flexibility is adequate; in the case described, of enhancing continuous customer satisfaction, an improvement of less than 10 percent over a time span of more than two years was considered inadequate. Hence we may take it that the degree of flexibility can be a parameter open to judgment by the organization itself according to its needs at a certain time. This study is not concerned with such value judgments. If the organization - its leaders - decided flexibility should be increased, in order to survive, we take it from that premise.

The problem is to demonstrate that organizational flexibility is directly proportional to personal flexibility of the organization's middle -managers.

The research hypothesis was that the ratio between the improved personal managerial characteristics and the original ones, was similar to the ratio between the improved organizational values and the original ones. Both, the personal and the organizational parameters were, of course, measured over the same time-span.

The **personal managerial performance characteristics** applied for this study were those that, by consensus, were perceived as **having had the most influence upon organizational performance goals**.

The managers under study set out to improve their flexibility by attending seminars of Feuerstein's Instrumental Enrichment (FIE) program, specially customized to suit their needs.

The importance of FIE is that it produces *structural* changes in the individual, thus providing him/her with cognitive tools to cope with new and unknown situations that he/she may encounter. **Hence, the same manager should find it easier to adapt and to modify according to the needs at the time.**

If indeed the hypothesis is verified and personal flexibility of incumbent middle-managers affects organizational flexibility, in a directly proportional fashion, this can provide an important tool to ensure organizational survival. So when business leaders proclaim and demand "flexibility at every level", they could then set out to achieve it by investing at the appropriate levels, and may even come closer to anticipating tangible organizational and business results.

At an era when change is occurring at an ever-increasing pace, it becomes of paramount importance to equip the individual with cognitive tools to deal with new and unknown situations.

In industry, problem-solving, for example, is a continual process in which employees are involved. Their capacity to tackle new and unknown problems becomes a source of strength to the company. **A very meaningful outcome of this study is the realization that investment in the development of the cognitive powers of the individual may benefit the organization as a whole.**

“The current belief that cognitive development can be enhanced and should constitute a primary goal of education is owed to the fact that the need to improve cognitive abilities is now more urgent than ever before.” [Because of the increasing pace of change]. *“Feuerstein advocates for education systems that consider intellectual power as their end rather than means. He was the first to promulgate the concept of Mediated Learning Experience (MLE) as the most critical modality of human learning and a critical factor in the variation in cognitive performance within and between individuals. His assumption that intelligence is modifiable by MLE regardless of age, level of functioning, or organic condition offers the quintessential icon for the optimistic educator - perhaps the only real educator.”* (Ben Hur, 1994).

The theory of **Structural Cognitive Modifiability** was developed by Professor **Reuven Feuerstein**. Since its inception it has generated an extensive research and application literature, and the bibliography today includes more than 1070 entries. The following are excerpts from an internal manual for LPAD [Learning Propensity Assessment Device] by Prof. Reuven Feuerstein:

“Structural Cognitive Modifiability (SCM) describes the unique propensity of human beings to change or modify the structure of their cognitive functioning to adapt to changing demands of life situations. This is not only a reflection of the person's response to

external stimuli, and changes in internal conditions, but it is also a product of the individual's active involvement in the process of learning and changing.

SCM is distinguished from biological or maturational changes, and from fragmentary or transient changes that may occur as a result of direct exposure to stimuli that are random and incidental. Change can be described as structural when (1) change in a part affects the whole to which the changed part belongs; (2) when the process of the change is transformed in its rhythm, amplitude and direction; and (3) when the change is self-perpetuating, reflecting its autonomous, self-regulatory nature. Structural cognitive modifiability occurs when the changes are characterized by permanence, pervasiveness, and are generalizable.

*Human beings are viewed as open systems, accessible to change throughout their life spans. The concept of SCM holds that humans have the capacity to change under specified conditions of remediation, providing that the quantity and quality of intervention matches the person's needs. The capacity for change is related to two types of human-environment interactions that are responsible for the development of differential cognitive functioning and higher mental processes: direct exposure learning and **mediated learning experiences.**"*

"The theory of mediated learning experience (MLE) addresses the question: 'What are the origins of differential cognitive development?' Usually, this question is conceptualized through the notion of the relative contributions of the organism (the

learner) and the environment (the context in which learning experience occurs). Organismic factors include those of heredity, organicity, maturational level, and the like. Environmental factors range from sensory stimulation to socio-economic status and educational opportunities. These contributions are usually perceived as directly affecting cognitive development and leading to differential outcomes. The theory poses a direct learning experience, learning that is an immediate consequence of exposure to stimulation, and a mediated learning experience that requires the intervention of a human mediator.”

Readers and practitioners are referred to a publication on MLE (Feuerstein et al., 1991) in order to better understand the profound meaning of this quality of interaction between the organism and its environment.

Feuerstein’s Instrumental Enrichment is a cognitive education program used for the enhancement of learning potential. IE materials are organized into instruments that comprise paper-and-pencil tasks aimed at specific cognitive domains, including analytic perception, orientation in space and in time, comparative behavior, classification, planning behavior, pursuing logical evidence, inferential hypothetical (“if”) thinking, strategies for hypothesis testing, interiorization, and more.

The IE program is mediated by professional IE trainers and can be implemented in a classroom setting. It consists of fourteen instruments that focus on specific cognitive functions. Learning how to learn is implemented through exercising those functions while attending to the tasks. The tasks become increasingly complex and abstract, yet they are deliberately free of specific subject matter because they are intended to be transferable to all life situations.

A NOTE ABOUT MEDIATION TO SOPHISTICATED ADULTS

What I'm going to say about mediating sophisticated adults may not be new to you, and I may repeat what you already know: We people are usually very busy, or so we would like to appear to be. The most important thing to remember is that the mediation is by far the most important factor in the IE session. A senior director who has difficulty with the Organization of Dots and sees some young computer programmer gliding through the page without apparent difficulty, this

director will not enjoy the session, and he will soon find a reasonable excuse to miss lessons . . . Later, this director will not be enthusiastic and will not wholeheartedly support introducing IE into his company. Therefore, we are exceptionally sensitive to each person's needs. Remember, the higher in the hierarchy the more vulnerable we are. Allow him ample time and frequent opportunities to expose his strong points, acknowledge his opinions, welcome his criticisms. All in good measure, of course; do not allow a person to dominate and take over your session . . .

Generally, in industry, we would have one session a week of **5 hours** each. It is not so advisable to compress, say, 12 hours in one weekend. The intervals between sessions are often very important because people like to voice their experiences during the week. This is because, as you know, we all become so much more **aware** when doing IE.

The best sequence is ***ORGANIZATION OF DOTS*** ➡ ***COMPARISONS*** ➡ ***CLASSIFICATION*** ➡ ***ILLUSTRATIONS***.

You can go a long way with these 4 instruments ! Adults in business would normally not have time for more than 80 hours at the most. Select the more advanced pages but they should be distributed almost at the end of the session

after a prolonged dialog about principles and plenty of bridging into real life situations brought up by the students. Bridging should be frequent, especially with top management people!

BIBLIOGRAPHY

For the article on “*Organizational Flexibility*” :

Ben-Hur, Meir (Ed.) (1994). *On Feuerstein's Instrumental*

Enrichment: A Collection.

Palatine IL: IRI Training and Publishing.

Feuerstein, R., Rand, Y., Hoffman, M. B., Jensen, M. R., & Miller, R. (1980).

*Instrumental Enrichment: An intervention program
for cognitive modifiability.*

Baltimore, MD: University Park Press.

Feuerstein, R., Rand, Y., Hoffman, M.B., & Jensen, M.R. (1984). Instrumental

Enrichment,

an intervention program for structural cognitive modifiability. In

J.W. Segal, S.F. Chipman, & R. Glaser (Eds.), *Thinking and*

learning skills (Vol. 1): Related instruction to research (pp.

43-82).

Hillsdale, NJ: Lawrence Erlbaum.

Feuerstein, R., & Hoffman, M. B. (1990). The Theory of Structural Cognitive

Modifiability.

In B. Z. Presseisen, R. J. Sternberg, K. W. Fischer,

3rd. C. Knight, & R. Feuerstein,

Learning and thinking styles: Classroom interaction

(pp. 68-134). Washington, DC: National Education

Association and Research for Better Schools.

Feuerstein, R., Klein, P. S., & Tannenbaum, A. J. (Eds.) (1991). *Mediated Learning Experience (MLE): Theoretical, psychosocial and learning implications.*

London: Freund.

Forisha-Kovach, B. (1984). *The flexible organization: A unique new system for organizational effectiveness and success.*

Englewood Cliffs, NJ: Prentice-Hall.

Harrigan, K. R. (1985). *Strategic flexibility: A management guide for changing times.* Lexington, MA: Lexington Books.

Tichy, N., & Charan, R. (1989). Speed, Simplicity, Self-Confidence: An interview with Jack Welch. In *Harvard Business Review*, Sep.-Oct. 89 #5, (pp. 112-120).

Reprint No. 89513.

