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## **CONTINUOUS LEARNING SYSTEMS APPLIED TO EDUCATION**

### **Teamwork: What Makes "One plus One" Greater Than "Two"?**

**Kozo Saito**

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## **INTRODUCTION**

This is continuation of my work on understanding key basic principles of Lean Manufacturing applied to improve education. In the 1995 edition, I discussed the concept of "Kufu" 'in relation to employee empowerment and Kaizen. In this volume, I will address teamwork.

In 1955 Robert Oppenheimer warned about the nature of change: "One thing that is new is the prevalence of newness, the changing scale and scope of change itself, so that the world alters as we walk in it, so that the years of man's life measure not some small growth or rearrangement or moderation of what he learned 'in childhood, but a general upheaval." We can only wonder what he would say about today's satellite communications networks. What would he say about our current World Wide Web computer network that makes it possible to communicate with anyone in the world almost instantaneously and very easily? With our global networking and communication system, a virtual university has emerged.

Bill Gates, the founder and CEO of Microsoft Corporation, a contemporary visionary leader recently offered his strategy for dealing with newness: "Microsoft is always searching for the new thing that is coming along, whether it is in a research laboratory or at another company. We try to understand what other people are doing, even if their apparent Mission is so distant that it is not obvious competition. We focus on what companies do well." (Gates, 1996). Certainly the emergence of a virtual university will require changes 'in the way the established university develops and deploys knowledge. The Microsoft strategy of "focusing on what others do well" is one approach.

The obvious question is not so much one of how the established university will be successful in a virtual university environment, but rather, how will those professionals educated by the established university be successful in a world of exponential newness? Again, Bill Gates offers his view. He states that there is no secret to success, but a certain attitude and approach contributes. He offered three points: (1) the value of time, (2) understanding the competitive landscape, and (3) no platitude when discussing management challenges.

If you are only interested in short-term goals, you can find something important among the three points offered by Gates to serve your immediate needs. This short term view, however, limits your future growth. If you know only a narrowly focused area and do not know what "others are doing well" you limit your opportunities. To be successful in a virtual university environment the professional will have to work at acquiring a "balanced view" of reality. This paper will explore how to acquire such a view through a discussion of mind-body relation, the law of least effort,

critical mass and "chemicals" to bind people in team work, and balanced "T" concept for successful team work.

### **Mind-Body Relation**

There is a saying in ancient Japan: "See things like God sees." This means that everybody's way of looking at things is different. We look at things through a special filter (or window), a unique product of our mind. A neurologist Sir John Eccles says: "I want you to realize that there is no color in the natural world and no sounds - nothing of this kind; no textures, no patterns, no beauty, no scent ..." In short, nothing is as important about the universe as your participation in it (Chopra. 1990: Wallace, 1989).

Chopra explains: "We trust our finite everyday experiences, which are good enough for driving a car, earning a living, and going to the beach, but they are not quite convincing enough compared to the overwhelming experience of the infinite. That experience, repeated throughout the centuries, causes some people to suspect that reality is very different, and far vaster, than what the mind, the body, and society generally accept. Einstein himself experienced this reality. He has testified to moments when one feels free from one's own identification with human limitation. At such moments one imagines that one stands on some spot of a small planet gazing in amazement at the cold and yet profoundly moving beauty of the eternal, the unfathomable. Life and death flow into one, and there is neither evolution nor destiny, only Being."

All these images and experience are received through the mind, which is said to be like a control tower or an ocean surface. The mind is the master and the body follows, but not the other way around. The mind selects which filter we use, and using that filter your body detects signals by hearing, smelling, seeing, tasting, and touching. Again, it is important to know that these signals are received through the special filter: if there are no filters, there are no signals to receive, as Eccles said earlier.

If the mind is like a calm ocean surface which can reflect incidents as they are, the choice of the filter will be accurate, and we can receive correct signals which guide us to rational and healthy human behavior (this means you are in harmony with nature). However, if our mind is like a rough ocean surface, it won't be able to reflect incidents as they are or won't reflect at all. Under this condition, the body will lose control or balance which means you become ill, or you may make wrong decisions.

In the eastern tradition of wisdom therefore, it is very important to keep our mind calm like a calm ocean surface. We often experience this wise advice in our daily activity. For example, we study hard and prepare for an exam. When the exam time comes, everything freezes up. This will happen more frequently and with a greater degree of severity if our mind doesn't have a calm ocean surface and doesn't collaborate with our body. This commonly experienced phenomenon, "freeze-up" occurs under many emergency situations. If you think that the exam is so important and you can't afford to fail, you will experience pressure which will increase your heart pulse, perspiration rate and so on. Your mind is sending a signal to your brain that you are in a critical circumstance and you have to do well in the exam, otherwise you have no future. The body is

generating a chemical called epinephrine, and our brain is under direct attack by this chemical (Chopra, 1991).

If your mind is not able to appropriately cope with this chemical attack, your brain won't function fully thus causing the "freeze-up" phenomenon. After the exam is over, you know all the answers because you are no longer in an emergency situation. Why can't the mind cooperate with the body generating unnecessary pressure? If your mind is like a calm ocean surface reflecting the exam as a small part of the entire ocean, your body will get the message "do not worry about the result, just do your best." That is because you already know a small local wave has little effect on the entire ocean; that is the true Self. Your participation is important, but the result of the exam, either success or failure has little value on the dignity of your Being. You also know the outcome of the exam will bring you opportunity for your learning, regardless of the results. Interestingly, you could learn most from your failing experience rather than your success!) If you fail after your serious thoughts and taking those thoughts into action, you can access to a wealth of opportunity to grow into a new dimension of life. This is the Japanese way of thinking, i.e., to win the gold medal in a world competition is not the final aim but a step toward personal growth. The ultimate aim of competition in the Japanese way is: by learning from the process of competing, to develop your inner world to be as big as the universe (Takagami, 1990).

The "freeze-up" phenomenon is also typical in sports. This is a recent story when a favorite basketball team lost an important game. A critic said: The normally loose team A was too tight to win. Team A had been loose and having fun until this important game. They seemed to suddenly tighten up when they recognized that this was the important one (so they couldn't lose it). After the game was over, one of the players commented: we came out like it was another game, and indeed it was. For me, it's hard to swallow. I let my team down and didn't do the things that I normally do and needed to be done." Again this is another example of how the mind plays its role in our physical activity. As one of the players said, "We normally can do this, but that day we couldn't do that." Why? Because his mind got a message that this was a crucial game, which they couldn't lose. I am sure that his body generated plenty of epinephrine that influenced his normal performance level against his will.

Once you understand this mind-body relationship, you are ready to move on to the next chapter, the law of least effort.

### **The Law of Least Effort**

Recently, a Japanese automobile company developed a unique philosophy, widely known as Lean Manufacturing (LM), to manufacture highest quality automobiles most economically by effectively coordinating workers, materials and machines. The LM philosophy was found to have vast application to many different systems including education, research, and almost all our daily activities (Saito 1995).

One of the important principles of the LM philosophy is the elimination of waste. Waste can be either material or human talent. According to Fujio Cho (1995), an expert of LM, seven types of non-human wastes can be found in the work place: overproduction, waiting, moving,

unnecessary processing, storing, transportation, and correction. Cho also discusses another kind of waste related to human creativity. LM offers well defined effective methods to eliminate these seven types of non-human wastes (Cho, 1995). However, there is no well established method available to eliminate waste in human creativity.

A major issue both in education and manufacturing is how to increase students' or workers' creativity. An interesting concept from India, the principle of economy of efforts, may provide insight to the improving our ability to create. This ancient philosophy is based on the idea that nature's intelligence functions with effortless ease ... with carefreeness, harmony, and love. And when we harness the forces of harmony, we create success and good fortune with effortless ease (Chopra, 1994). If you observe nature at work, you will see that the least amount of effort is expended. Grass doesn't try tomorrow, it just grows. Fish don't try to swim: they just swim. Flowers don't try to bloom, they bloom ... This is their intrinsic nature. It is human nature to make our dreams manifest into physical form, easily and effortlessly.

This philosophy matches one of the most important LM principles: elimination of waste in human creativity. Chopra continues: "Ultimately you come to the state where you do nothing and accomplish everything. This means that there is just a faint idea, and then the manifestation of the idea comes about effortlessly. What is commonly called a 'miracle' is actually an expression of the law of least effort. Nature's intelligence functions effortlessly, frictionlessly, spontaneously. It is non-linear. It is intuitive, holistic, and nourishing. And when you are in harmony with nature, when you are established in the knowledge of your true Self, you can use of the law of least effort."

In *The Art of Dreaming* (Chopra, 1990), there is an explanation that: "humans possess unlimited energy, yet most of it is usually wasted because we are upholding our importance (and defending ourselves). If we were capable of losing some of that importance, two extraordinary things would happen to us. One, we would free our energy from trying to maintain the illusory idea of our grandeur; and two, we would provide ourselves with enough energy to catch a glimpse of the actual grandeur of the universe."

According to Chopra, if we want to master the law of least effort and enjoy the benefits from it, we need to go through a "three step" training. The first step is the acceptance of the present as it should be, the second step is the ability to have a creative response to the situation as it is now, and the third step is to be defenseless. Each step may need further explanation. In the first step, we need to accept things as they are, not as we wish they were at this moment. Chopra says, "When you feel frustrated or upset by a person or a situation, remember that these are not someone else's fault. ... If you can accept things as they are, you are ready to take responsibility for your situation. ... All problems contain the seeds of opportunity." This means when we are upset and blame others, we fail the first step. However, if we can take the upsetting situation as an opportunity to improve ourselves, we are practicing the first and second steps and are ready to move on to the third step.

In the third step, we should reduce our need to defend, or have no defenses. Chopra says: people spend more than 99 percent of their energy defending their points of view. If you just relinquish the need to defend your point of view, you will gain access to enormous amounts of energy that

have been previously wasted. However, it is not easy to be defenseless for anybody who seeks power, tries to control others and get approval from others. This person wastes a tremendous amount of energy in defending himself. He may not realize how much energy he has wasted until he discovers the true Self. According to Chopra, the true Self neither seeks power to control others nor seeks recognition from others: the true Self is immune to criticism and has no fear of anybody. The true Self harnesses the power of compassion, while the ego seeks power to control others. Therefore, if you do not want to waste your energy, you need to shift your reference point from the ego-centered to the true Self. Fear is a major factor when people shift their internal reference point from the ego to the true Self. i.e., if you have fear, you try to protect yourself and spend a lot of energy in doing so.

Fear begins when we separate ourselves from others. The concept of separation has been used as a basic tool in science, known as categorization (or classificatory concept). Categorization seems a very powerful tool and it works if the whole system is a simple linear function of several subsystems. However, the categorization may not work when the whole system is a complex nonlinear function of subsystems as is nature. Heisenberg (1958) explains the limit of the idealization in the basic sciences (both the idealization and categorization have the same conceptual basis which is separation from the reality): "Only through the precise definitions is it possible to connect the concepts with a mathematical scheme and to derive mathematically the infinite variety of possible phenomena in the field. But through this process of idealization and precise definition the immediate connection with reality is lost. The concept still corresponds very closely to reality in that part of nature which had been the object of the research. But the correspondence may be lost in other parts containing other groups of phenomena."

Modern quantum physics found that all molecules are interconnected: a molecule in the corner of this room knows exactly what other molecules at the edge of the universe are doing! The constantly changing character of nature was explained by Plato: "You can't soak your feet twice in the same river." Currently we are aware that everything in nature is interconnected and constantly changing. Therefore, we may need to rely on somewhat different methods in order to "capture" nature as an unbreakable whole system (here the word "capture" was used instead of "understanding," which is limited to logical thinking). This made Einstein declare: "I hardly discovered anything by a logical mind."

Mother Teresa, the Nobel Peace Prize Catholic nun puts the interconnectedness of people and her personal destiny (Parade Magazine, 1996):

The fruit of silence is prayer. The fruit of prayer is faith. The fruit of faith is love. The fruit of love is service. The fruit of service is peace.

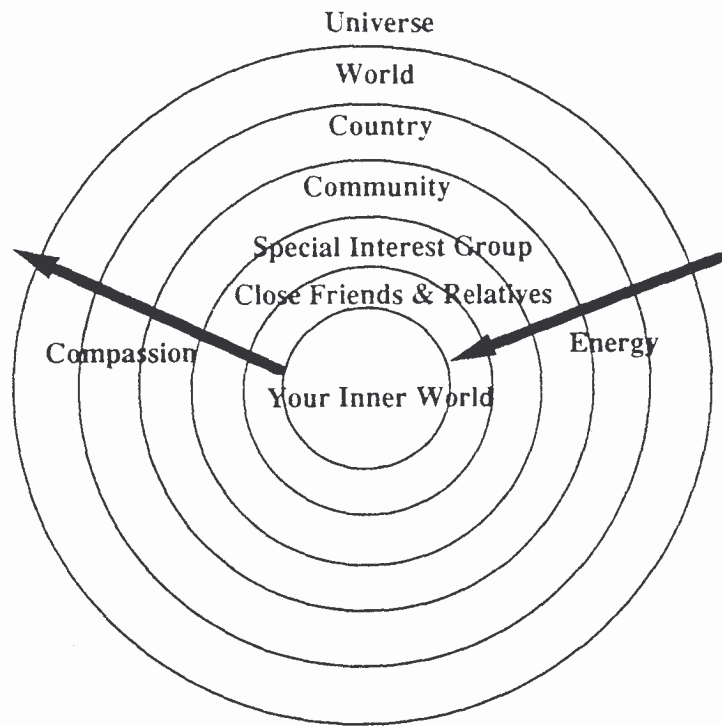
The message from Mother Teresa contains a profound meaning: The religious practice begins with quiet prayer. Through the quiet prayer, you will hear your inner voice which generates energy of compassion. By practicing what you truly believe in day-to-day life, your energy of compassion will propagate to the external world starting from a small circle to a larger one, and eventually that ring may well reach the universe. There, you gain energy from the universe. This self-feeding process is described in Zen Buddhism as "Sho ken Go-un Kai Kuh - everything evolves from your mind and the results will come back to you in a most unpredictable way."

(Takagami, 1990). Thus, the quiet prayer is basically the same as Zen meditation in which we listen to our inner voice, touch unfathomable and gain energy from nature. The concept of Mother Teresa's message is schematically shown in Figure 1. The concept of the figure I is extremely interesting, because the driving force for the self-feeding energy system is the quiet prayer or meditation, listening to our inner voice, which is very personal and is not logical thinking. Buddha described the figure I concept by saying "I have a big universe in myself."

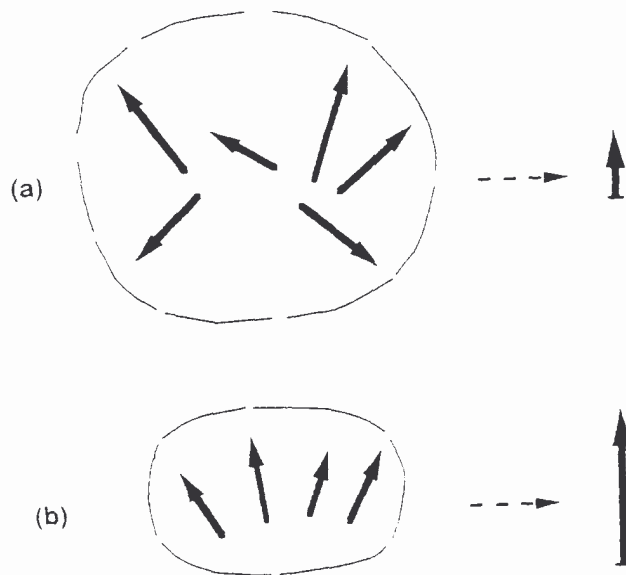
### **Critical Mass in Team Work**

Critical mass, a term used to assess team activity, refers to the energy level that is required to meet a specific goal. It means the energy level that is required to achieve a specific goal. The critical mass is an important concept in interdisciplinary projects, but not in multidisciplinary ones. According to Richard Emori-sensei (this is a Japanese way to call a person with respect), the interdisciplinary project differs from the multidisciplinary one, and it is important to know how the two differ. Both interdisciplinary and multidisciplinary teams consist of several people with different areas of expertise. In the interdisciplinary project, team members are deeply committed to each other in order to achieve a common goal; while in the multidisciplinary project, team members work primarily based on their own interest, they are weakly committed to each other, and there is little interaction between the team members to achieve a common goal. The interdisciplinary project is designed to achieve a single goal, while the multidisciplinary project is likely to end up with fragmented pieces of results. A schematic view of the interdisciplinary and multidisciplinary approaches is shown in Fig. 2. The length of each vector represents the level of each worker's technical skill and the direction of the vector represents their interest. The length of the vector on the right hand side represents the, total outcome achieved in each system. Figure 2 shows that the smaller number of the interdisciplinary team can achieve more than the multidisciplinary team.

Each project is different and requires a unique team consisting of several people with complementary talents. If one individual has all the talent needed to achieve the goal, critical mass already exists in one single individual. However, this may not always be the case and many projects often require the talents of several people in order to effectively achieve the goal.



**Figure 1** A schematic presentation of the concept described by Mother Teresa; Mother Teresa's concept is very similar to Zen Buddhism (Takagami, 1990).



**Figure 2** (a) Multidisciplinary team structure and (b) Interdisciplinary team structure. The outcome vector from each team effort is shown in right hand side.

Let's assume a project requires four different specialists. If we can find these four people, we may form a team and claim that now we have a critical mass. But it is still not enough to form an interdisciplinary, team and achieve the goal. The most important and difficult thing is that these four people need to work together as a single body. Here the team work concept, one plus one making more than two needs to be practiced. Communication and mutual understanding are essential in this concept. Furthermore, successful team work requires binding people together; they need to share a common philosophy in working together. Rick Pitino, a successful college basketball coach mentioned that a strong basketball team consists of good players with complementary skills plus chemicals His statement makes the point that teamwork is not only a simple accumulation of individual workers, but "chemistry" is also needed. If these requirements are not met, just putting four different people together in a single room and assigning each a different task, won't create the environment for successful teamwork. Therefore critical mass doesn't simply mean the number of people, but means a team of people who can successfully work together to achieve a common goal in the most sharing fashion.

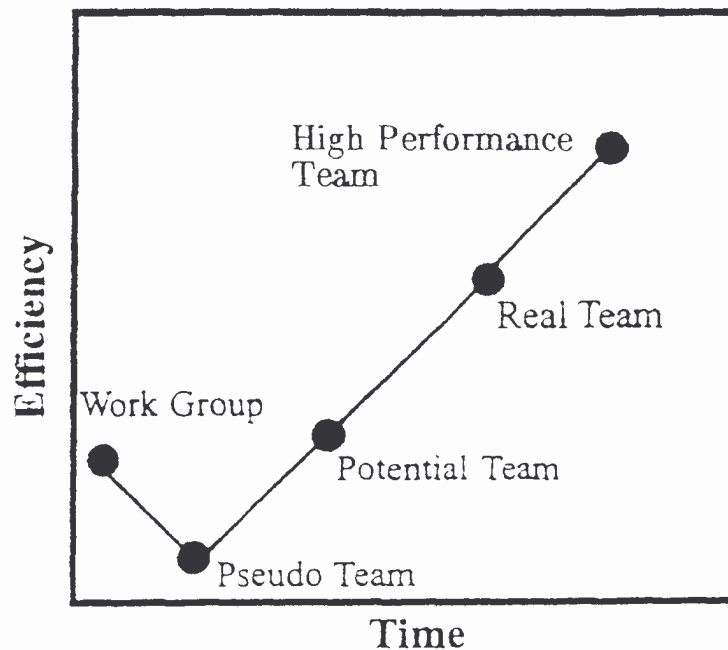
Pete Senge (1990) introduces "shared vision" as the chemicals which are necessary to transform organizations into learning organization. He writes "Shared vision is vital for the learning organization because it provides the focus and energy for learning. ... the whole idea of generative learning - expanding your ability to create - will seem abstract and meaningless until people become excited about some vision they truly want to accomplish. (Thus) shared visions emerge from personal visions. This is how they derive their energy and how they foster commitment. As Bill O'Brien of Hanover Insurance observes, 'My vision is not what's important to you. The only vision that motivates you is your vision.' It is not that people care only about their personal self-interest - in fact, people's personal visions usually include dimensions that concern family, organization, community, and even the world. Rather, O'Brien is stressing that caring is personal. It is rooted in an individual's own set of values, concerns, and aspirations. This is why genuine caring about a shared vision is rooted in personal visions. This simple truth is lost on many leaders, who decide that their organization must develop vision by tomorrow! ... The most direct is for leaders who have a sense of vision to communicate that in such a way that others are encouraged to share their visions. This is the art of visionary leadership -how shared visions are built from personal visions."

The underlying philosophy for teamwork is "none of us is better than all of us." A team is a small number of people with complementary skills, who are committed to the same common purpose and performance goals for which they hold themselves accountable. It has been said: what is true about sports is also true in business. Often a group presented as a team is nothing more than a collection of individuals who don't know the first thing about how to work together. That group hasn't been given the opportunity to become a team. It takes effort, conscious effort, to become a team. Figure 3 shows a schematic of several steps that are required to become a high performance team (Kentucky Transportation Center., 1996).

A work group is the first step necessary in order to create a team and it exists primarily in order to share information. A pseudo team is the next step and may engage in some type of informal discussion, but doesn't focus on a specific goal and doesn't try to achieve it. The next level is a potential team which tries to achieve some goals in an informal way. A real team with clear



purpose, goals, and working approach will be the next step. And finally, a high performance team consisting of deeply committed team members will emerge.



**Figure 3** Five different steps toward a high performance team (the figure is adopted from Kentucky Transportation Center, 1996)

To form a high performance team "chemistry" or "shared vision" are needed. In the business world, experts say integrity can be the catalyst to a healthy bottom line and recommend the following if you want to be successful: (a) Take responsibility for service. Serve the needs of others so well that you avoid the need to explain what happened. (b) Always teach, train and reward subordinates to learn how to be successful. (c) Play fair. Turn down the short-term extra dollar when it compromises your integrity. (d) Listen carefully to what other people are saying. You can learn effectively just by listening. Keep the spotlight on others and grow rich. (e) Look for ways to help. Look for ways to help associates, customers, vendors, and even competitors. (f) Give back to the community. Give your time and your money to community causes that you believe in and ask for nothing in return.

If you want to know your management style, check all the following that are characteristic of your behavior (Graham, 1996).

1. Seize every opportunity to praise the positive.
2. Try to excel in whatever you are doing.
3. Make all deals fair and straight.
4. Constantly look for ways to help customers.

5. Invest heavily in employee development.
6. Never make a deal based on the cheapest price.
7. Read everything about your industry.
8. Engage in meaningful community service.
9. Avoid unrealistic sounding temptations.
10. Help people who are out of work.

Seven or more checks may suggest that you have the characteristics of a successful manager.

Among the above list, you may be curious why items (e), (f), 8 and 10 are important to be successful in business. "To understand the underlying philosophy for these items, we may need to go beyond our materialistic view and get into spiritual and religious views. In ancient Japanese wisdom there is a saying, "if you want to be happy, make others happy first," or "if you want to be full, you need to be empty first." In other words, when we give something to others, our true self receives spiritual satisfaction, and our spiritual energy level increases creating the nibble of our energy wave. The wave generated by your "good behavior" interacts with hidden energies (Chopra says these energies were hidden after the Big Bang, the origin of universe). That hidden energy will come back to us energizing the power of our mind and spiritual level of our energy. No wonder we feel good about ourselves, when we help others. The increased power of our mind helps us to be successful not only in business, but also in everything. Chopra says, ultimately we become able to accomplish everything with effortless ease, if we persistently practice the seven spiritual laws (Chopra, 1994).

### **Balanced "T" Concept for Successful Team Work**

Over 2000 years ago, Buddha came to a conclusion that our external view is a byproduct of our inner view, i.e., everything begins from Kuh - an energy soup described as nothingness. Interestingly, in the twentieth century, we rediscovered this concept to be true in neurology (Chopra, 1994), physics (Bohm, 1964; Einstein and Infeld, 1996; Heisenberg, 1958; Wallace 1989), philosophy (Carnap, 1995; Krishnamurti, 1981; Takagami, 1990), and even in manufacturing floor (Cho, 1995). The Kuh concept carries an important message: if we want to improve our external view, we need to explore our inner world, i.e., to understand who we are. As Chopra stated earlier, if we accept things as they are, but not as we wish, everything becomes an opportunity for us to grow wise. This is a very powerful way to improve our view. It sounds so easy, but in reality it is not, because we are so accustomed to a distorted view that developed over years of bad habits.

We need to recondition our minds to get rid of bad habits, much in the same way we condition our bodies. We do physical exercise to keep our bodies in shape, but few of us do the same for our minds. Poor maintenance of our body will cause all kinds of illness. Using the same

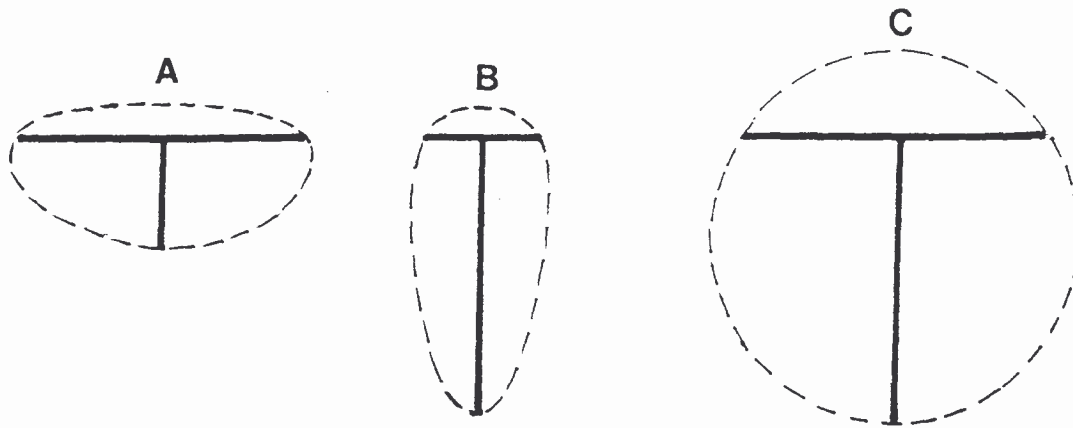
principle, poor maintenance of our minds will cause all kinds of psychological illness. In fact, poor treatment of our minds will cause us much larger effects, because the mind is the control tower of all human activity.

Therefore, it is important to maintain both the mind and the body in order to obtain a "balanced view." A balanced view is the result of a balanced mind-body relationship. Let's represent our mind activity as a horizontal line, and our body as a vertical line. Both lines are connected to each other forming a "T" shape. Figure 4 depicts three different types of "T". Around each "T", there is a dotted round shape, either circular or oval, enclosing each "T" shape. The dotted round shape represents the window through which we look at all the events happening around us. Types (a) and (b) are called distorted (or unbalanced) views, while (c) is a balanced view.

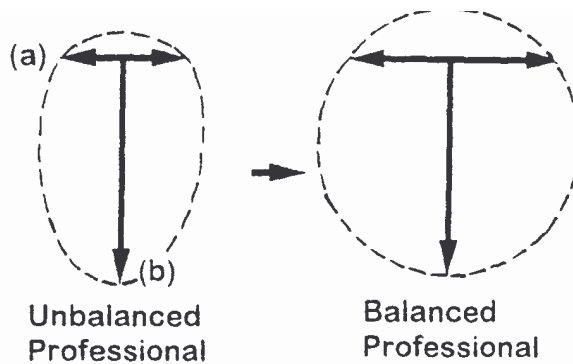
You are able to see things as they are only through the (c) window. It is important to know, therefore, how to transform (a) and (b) to (c). Type (b) view can be found among many typical professionals whose view is narrowly focused on their areas of expertise. Transformation of type (b) to (c) requires more effort than that of (a) to (c). For the type (b) person, their mind is so undeveloped, yet their brain is stuffed with technical knowledge and their undeveloped mind needs to convince their brain by saying that technicality is secondary. Figure 5 is the schematic explanation on this concept.

The inflexible attitude of professional people also limits the expansion of the circle around the "T". Heisenberg states the importance of flexible thinking in dealing with physics: "Whenever we proceed from the known into the unknown we may hope to understand, but we may have to learn at the same time a new meaning of the word 'understanding.' We know that any understanding must be based finally upon the natural language because it is only there that we can be certain to touch reality, and hence we must be skeptical about any skepticism with regard to this natural language and its essential concepts. ... Modern physics has opened the door to a wider outlook on the relation between the human mind and reality." (Heisenberg, 1955).

The diameter of dotted circle represented the ability to interact with others through teamwork. This is integral part of the "one plus one makes more than two" concept and is illustrated in Figure 6. In the figure, two vectors, A and B, represent person A and person B. The length of the vector represents the energy level and the dotted round shape is the energy contour. Vector  $\alpha$  is produced by the interaction of vector A and B. Figure 7 shows four typical cases between two professionals. Success for team work can be measured by the outcome vector  $\alpha$ . The larger the  $\alpha$ , the greater the success of the team work. The most successful team work can be expected between two professionals, who have balanced "T", while none of the other cases are as successful as that combination. Interestingly, a negative  $\alpha$  could occur between two type (b) professionals when their vectors point in the opposite direction. This is the case when available resources are limited and two professionals are not able to share the resources creating competition between them. Competition driven by ego and greed can be very destructive, while collaboration will bring us mutually beneficial results. Interestingly, type (c) professionals won't cause the reverse vector relationship, because their dotted circle is flexible enough to avoid that happening.



**Figure 4** Possible three different types of mind-body relationship. Type (a) is rather uncommon. Type (b) represents a typical professional, and type (c) the balanced professional.



- $E_{(a)} < E_{(b)}$
- $E_{(b)}$  dominates
- (a) has to fight with (b)
- (b) is inflexible

**Figure 5** A schematic view showing a transformation process from type (b) unbalanced professional to type (c) balanced professional.

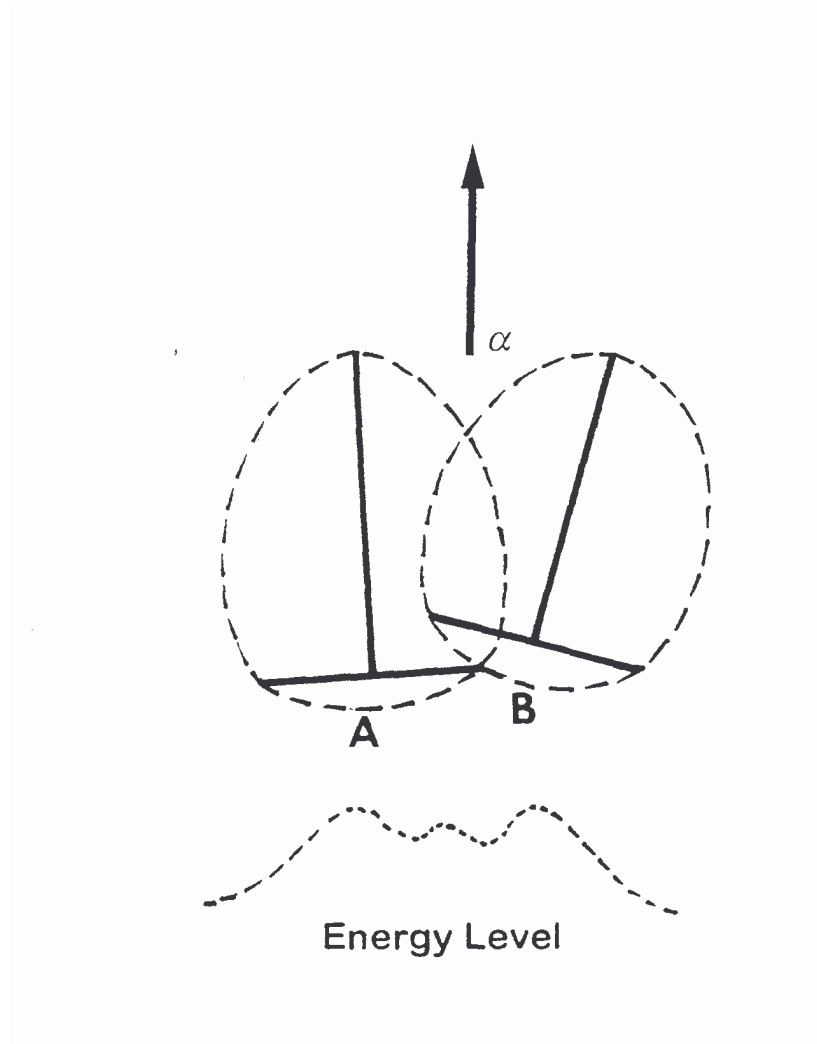
The importance of the balanced view is also emphasized by Stephen Covey in his best selling book: *First Things First* (Covey et al. 1994). He writes: "Fulfilling the four needs (physical, social, spiritual and mental) in an integrated way is like combining elements in chemistry. When we reach a "critical mass" of integration, we experience spontaneous combustion - an explosion of inner synergy that ignites the fire within and gives vision, passion, and a spirit of adventure to life. The key to the fire within is our spiritual need to leave a legacy. It transforms other needs into capacities for contribution. Food, money, health, education, and love (compassion) become resources to reach out and help fill the unmet needs of others." By referring to Abraham Maslow,

one of the fathers of modern psychology, Covey stresses the highest human experience is self-transcendence or living for a purpose higher than self. Covey continues: "Only as we see the interrelatedness and the powerful synergy of these four (physical, social, spiritual and mental) needs do we become empowered to fulfill them in a way that creates true inner balance, deep human fulfillment, and joy."

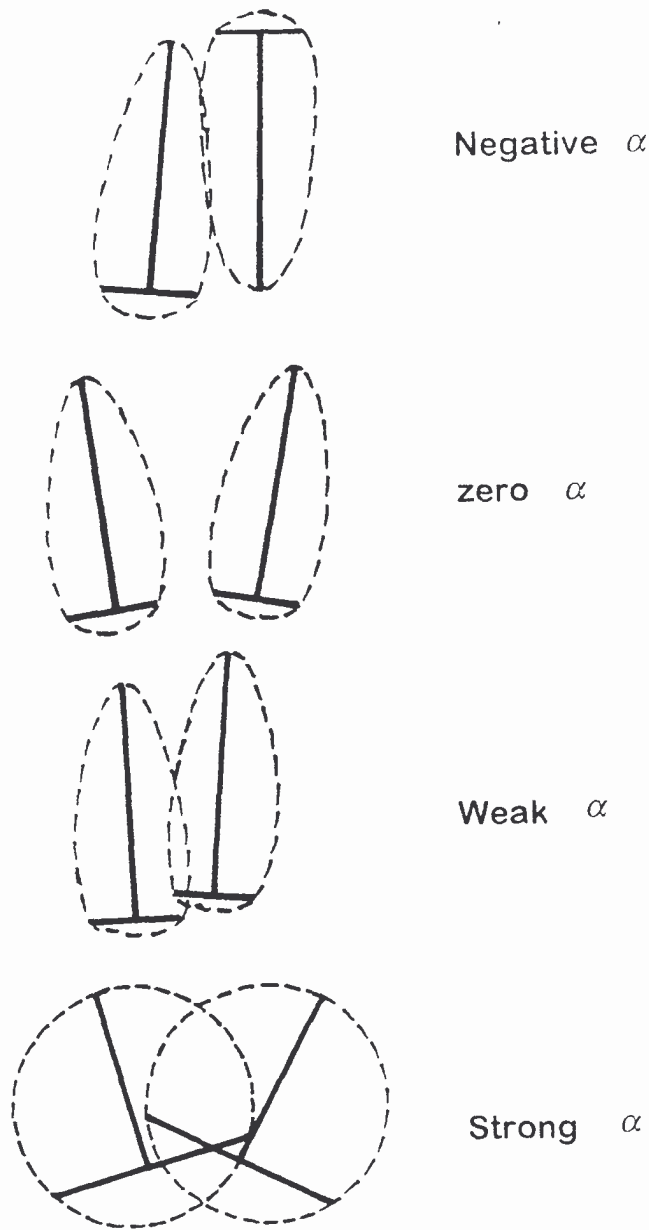
A quantum physicist, David Bohm once said: "It would not be fundamentally unimaginable, that a future extension of mathematical logic might give a certain meaning to the statement that in exceptional cases  $2 \times 2 = 5$ , and it might even be possible that this extended mathematics would be used in calculations in the field of economics." (Heisenberg, 1958).

Based on the balanced "T" concept, specific guidelines are made on how to form a successful team. These specifics include: (1) train employees to be multi-skilled workers, (2) share all information with employees - visual management, and (3) create autonomy and replace hierarchy with self directed teams - continuous improvement.

The importance of the balanced "T" concept was stated by different people on different occasions. Following are some examples.



*Figure 6 A* schematic of "one-plus-one" makes more than "two" concept.



**Figure 7** Four different types of combination made by two professionals resulting in four different Outcome vector /alpha.

"The tragedy of life doesn't lie in not reaching your goal. The tragedy lies in having no goals to reach. It is not a disgrace not to reach the star, but it is a disgrace to have no stars to reach for ..."  
 (Benjamin Elijah Mays) "Education isn't about knowledge or skills or competence. It's primarily about the confidence to be curious about the world in which we live, to be able to dream dreams"  
 (Mike Fitzgerald, Vice chancellor of Britain's Thomas Valley University)

The common philosophy underlying the above statements is the importance of training your mind, while technicality is secondary. Employee empowerment means: empower the mind of

workers and educate them to be balanced "T" professionals. Therefore, all technical training programs on team work and employee empowerment programs should be designed to achieve that goal.

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