Enhanced learning and performance through a synergy of objective and subjective modes of change

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Abstract

Despite today's accelerating rate and extent of change, the needed improvements within many areas of performance and quality of life have not taken place. Posits that productivity is remaining the same or even going down in many areas. Infers that learning and change have not been effective. Change involves a subject or self, who is acting, and an object which is acted on. Until now there has been an imbalanced focus on the object. In order to achieve more effective learning – through a synergy of objective and subjective approaches to change – suggests a comprehensive model of change where the emphasis is shifted from the object to the subject. In higher stages of human development, the subject increasingly experiences an enhanced capacity for accomplishment. Argues that this transformation of the actor provides the stable premiss for overcoming many of the shortcomings of contemporary learning and change strategies. In order to implement in practice the expanded change conception, introduces a mental technique – transcendental meditation – which systematically fosters human growth to higher stages of development, as shown by scientific research.

I. The need for a new paradigm of change in the twenty-first century

> With change such a pervasive element of existence, one might expect that the nature of change and of the ways of affecting it should be clearly understood. But the most immediately given is often the most difficult to grasp… (Watzlawick *et al.*, 1974, p. 77).

Taking a bird's eye view, the enormous and increasing amount of change going on in contemporary society has not produced the expected and needed results. Of course, there has been impressive progress in the outer world of objects, i.e. within transportation, electronics, technical means of communication, information technology, medicine, chemistry, and economics (Harung, 1993). Related to this is a fiftyfold increase in the productivity of the manufacturing sector since Fredrick Winslow Taylor (1856-1915) first applied knowledge to the study of work (Drucker, 1994, pp. 30, 34). However, it is anticipated that soon manual work will account for only one-tenth or even less of the workforce in developed countries (p. 36). Therefore, the performance in the manufacturing sector is no longer most important for the creation of wealth.

Instead, increasingly the creation of wealth hinges on non-manual work – the fast growing service and knowledge sectors. These "competence-intensive" and more "subjective" areas are dealing with such things as the production and assimilation of knowledge, the variety of services provided in modern society, and quality of life. In such areas, Drucker (1994, p. 75) claims that productivity is "abysmally low". He goes on to write:

> One-third of the capital investment in developed countries in the last 30 years has gone into equipment to handle data and information, computers, fax machines, electronic mail, closed-circuit television, and so on…[yet] instead of becoming more productive, clerical workers have become less productive. The same is true of salespeople and also of engineers. And no one, I dare say, would maintain that the teacher of 1990 is more productive than the teacher of 1900 or the teacher of 1930. The lowest productivity is in government employment. And yet governments everywhere are the largest employers of service workers… Unless we learn how to increase the productivity of knowledge workers and service workers, and increase it fast, the developed countries therefore face economic stagnation and severe social tension (pp. 75-6).

On this basis, to handle the reality of the twenty-first century, I submit that there is an urgent need for a new, more effective change paradigm. This new paradigm must involve a synergy of objective and subjective approaches to change and learning, as will be described in this paper.

For space limitations, the paper will be restricted to individual change and learning. Even so, the paper will be of importance for collective learning, because "here is the central point: Organizations as we know them are the people in them; if the people do not change, there is no organizational change" (Schneider *et al.*, 1996). For a description of similar ideas with respect to organizational learning and change, please refer to Gustavsson and Harung (1994) and Harung *et al.* (in review). Although the paper deals mainly with change, much of the material is equally relevant to the learning organization (Garavan, 1997).

'…Change involves three components: the subject who performs the action, the change process, and the object which is changed…'

Change involves three components: the subject who performs the action, the change process, and the object which is changed. There is a reciprocal relationship between the three. However, even when we change an object, we do it for our own sake. Ultimately therefore, change is always rooted in the subject or self who performs the action. Even though this paper will consider all three components, the emphasis will be on the most fundamental and important element: transforming or changing the actor himself or herself to higher levels of performance and quality of life.

We act in order to change one state of affairs into one that is more desirable. This is the only worthwhile direction of change. The ultimate drive behind change and learning is the pervasive quest of man for satisfaction (Aristotle, referred to in Csikszentmihalyi, 1991; Dahl, 1993). As Maslow (1968, p. 45) observed "…growth takes place when the next step forward is subjectively more delightful, more joyous, more intrinsically satisfying than

the previous gratification with which we have become familiar and even bored".

Maharishi (1966) takes this argument one step further, and writes that the very purpose of life is the expansion of happiness. This theme reaches its fulfilment when the actor rises to higher stages of development where life is increasingly characterized by an expanded perspective, a permanent inner experience of happiness and silence, and a growing capacity to perform and to achieve (Harung *et al.*, 1995, 1996).

Perhaps Senge (1994, p. 12) envisages the same when he writes about "the subtlest aspect of the learning organization – the new way individuals perceive themselves and their world".

Common change issues
Change appears to be an intrinsic part of life. In fact, the common experience is that of being compelled to change, because "then there was the law of life, so cruel and just, that we must change, or else pay more to remain the same" (N. Mailer, quoted in Dahl, 1990). Even though change today is taking place at an accelerating pace, this is largely confined to the domain of objects, as reviewed above. As a consequence most of progress has been within the concrete fields of engineering and technology (Harung, 1993). With respect to the more important process of changing the subject, there has been much less progress, i.e. the many grave problems that persist within the areas of social behaviour and health. Consequently, in spite of all the current change taking place, often the real issues are remaining unresolved, or even becoming worse. Examples of common change issues are:

(1) Directing the change to some obvious symptoms, and not to the root cause. Because problems frequently are complex and interwoven, "doing the obvious thing does not produce the obvious, desired outcome" writes Senge (1994, p. 71), who gives several examples of common change methods which are ineffective. Developmental psychology has shown that mature people master their lives and are much better at addressing their challenges (Harung *et al.*, 1995, 1996; Maslow, 1968; Torbert, 1991). For this reason we will argue that the fundamental root cause of problems is shortage of human development.

(2) The lack of effectiveness typically results in change for the sake of change. There is a French proverb which states that the more something changes, the more it remains the same (Watzlawick *et al.*, 1974, p. 1). In business and society we also find this out-of-proportion emphasis on action in itself – on the "doing". In many cases this means hiding lack of creative intelligence and worthwhile results behind action. In tune with what was concluded in point 1, the priority should be shifted to the basic premiss for change – the way individuals perceive themselves and others.

(3) "Obviously, change only comes about if it is implemented" (Dahl, 1993). Even when the desirable direction of change is known – and although it in principle may be so easy – it frequently is much simpler to define change than to implement it. The reason is that there are many individual and collective "homeostasis" and defence mechanisms in operation, resulting in a strong tendency to preserve status quo (Broekstra, 1995; Gustavsson and Harung, 1994; National Research Council, 1994; Senge, 1994). In order to affect change, one needs to move beyond the conventional mentality.

(4) Change implies letting go of something old in order to get something new and (hopefully) better. The all too common lack in ability to let go is a major challenge inflicting change and progress (Maslow, 1968; Senge, 1994).

(5) Unfortunately, once a particular change is "implemented", it often turns out to be a short-lived artefact rather than a natural and stable improved state of affairs. Change associated with push or command-and-control often fails to result in permanent growth (Dahl, 1993). In contrast, change characterized by natural attraction, self-motivation, and pull tends to last. The issue is, how do we manage a shift from the former to the latter category, which at present is the exception to the rule?

(6) When change is taking place at a faster pace than we can handle, the process of solving a problem does in itself become a new problem. This situation is frequently apparent when an organization and its members repeatedly have to adapt to new, superficial, and short-lived business fads (Broekstra, 1995). More generally speaking, the current waste accumulation of information may pose a problem of being overinformed. Today humankind has the capacity "to accelerate change far faster than anyone's ability to keep pace" (Senge, 1994, p. 69). However, it is not the pace of change which is threatening, it is our inability to handle it which is the problem. To address this issue, both stability (non-change) and adaptability (change) must be enhanced.

(7) Timing is important in change. For example, it is an all too common reality to try and solve a problem by reacting and treating it after it has been created. Gummesson (1989) refers to that perhaps 94 per cent of problems in the service sector can be traced back to the design of a system, and only 6 per cent to operation. A much more royal strategy would therefore be to proact and prevent the issues from manifesting. The point is to do right from the beginning.

(8) Isolated changes must be integrated so that they are synchronic with the overall strategy. In order to provide the much needed holistic perspective on change, higher priority should be given to reflection and systemic thinking (Senge, 1994). The complexity of details at the superficial levels frequently prevents us from seeing the often simple and holistic systemic patterns which in different costumes recur in diverse fields of life. When we start recognizing these patterns it is a sign of growing wisdom.

(9) There must be a balance between short-term and long-term perspectives. Typically in today's scenario, short-term benefits and quick fixes receive too much attention.

(10) Research shows that changing isolated parts seldom results in system-wide improvement (National Research Council, 1994). The only change that is fully satisfactory is that which leads to "win-win" or "more for all". "Win-lose" change, or even change that leads to "more for many", will never be satisfactory and lasting.

(11) The overall issue is that we don't appear to understand the mechanics of change and learning. As a consequence, change is often considered irrational – even

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mysterious – and arbitrary (Watzlawick *et al.*, 1974). However, there must be explainable mechanisms at play, meaning that with enhanced awareness and greater insight we should be better able to comprehend and master change.

The purpose of this paper is to present a comprehensive framework of change that addresses the above issues. The primary strategy that will be proposed is that of holistic human development. Research has shown that man has a number of developmental stages, each representing a higher degree of consciousness or wakefulness (Alexander *et al.*, 1990; Harung *et al.*, 1995). Development leads to a more comprehensive world view, progressively providing the individual with a growing capacity for addressing the change issues mentioned earlier.

In order to provide a framework which is broad enough to facilitate effective change, an overview of the whole range of human development is presented. This range consists of two parts:

(1) stages of psychological development from modern psychology, culminating in Abraham Maslow's (1968) conception of self-actualization, and beyond this

(2) higher states of consciousness from the Vedic Psychology of Maharishi Mahesh Yogi (1967, 1972).

The second range is needed to explain the advanced ability to learn and change in some of the world's most accomplished performers (Harung *et al.*, 1995, 1996).
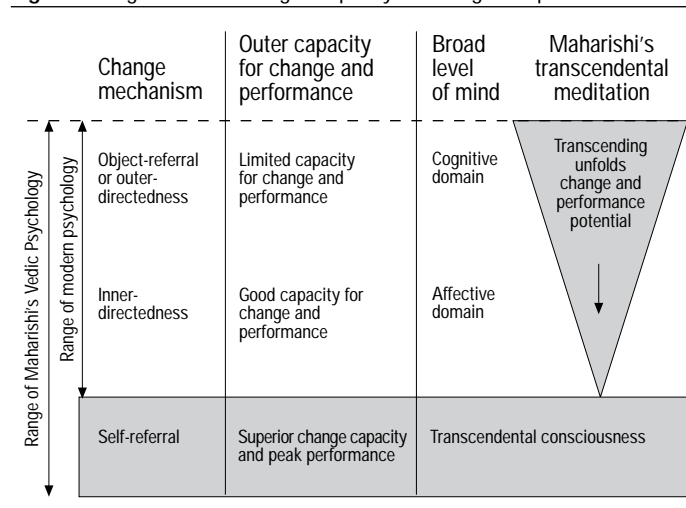
Major themes

This subsection will introduce the major themes of the paper.

Theme 1: Outer-directedness and inner-directedness

There are two basic change mechanisms: Outer-directedness and inner-directedness[1] (see Figure 1). The term outer-directedness, or object-referral as we will also call it, captures the process where our conscious awareness is directed outwards through the senses to the objects of action. In this mode, our behaviour is by and large connected with the more surface levels of the mind, i.e. concrete thinking and deciding[2] (Harung, 1993). These mental levels can be referred to as the cognitive domain (e.g. Dahl, 1993). When our conscious awareness is limited to these

Figure 1 Progressive unfolding of capacity for change and performance

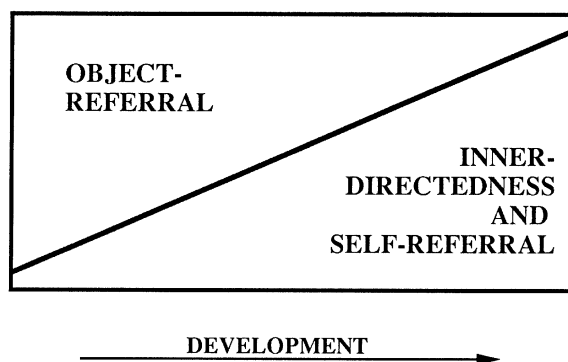| Change mechanism	Outer capacity for change and performance	Broad level of mind	Maharishi's transcendental meditation
Object-referral or outer-directedness	Limited capacity for change and performance	Cognitive domain	Transcending unfolds change and performance potential
Inner-directedness	Good capacity for change and performance	Affective domain	
Self-referral	Superior change capacity and peak performance	Transcendental consciousness	

surface levels, the deeper forces of feelings and individual ego (= deepest aspect of the individual) tend to lie beyond conscious awareness. Of course, everybody has feelings and a sense of identity, irrespective of developmental stage. However, in immature stages, feelings and the ego lie beyond our conscious contact and control. In this situation, these deeper mental levels continuously affect our lives in an unseen or unnoticed way, and the positive influence they are able to have on us is severely restricted (Harung, 1996).

With evolution, awareness becomes more and more familiar with itself; becomes conscious of deeper inherent aspects of itself which it hereto was unaware of. This leads naturally to the growing capacity for inner-directedness where the attention is turned inwards relating to faculties such as feeling, intuition, values, meaning, and individual ego. These faculties, which comprise what Dahl (1993) denotes the affective domain, are within the range of modern psychology. However, the essential aspect of inner-directedness is "self-referral", which is connected to transcendental consciousness – the most fundamental and potent level of our mind (Maharishi, 1986). As we shall see, this ultimate level lies beyond modern psychology, and we need to turn to Vedic Psychology for a satisfactory understanding of self-referral. Because self-referral is much more potent and intimate to our lives than object-referral, with development there is a shift of emphasis to self-referral, maintaining object-referral as a subset (Figure 2).

The relationship between object-referral and self-referral can be illustrated with respect

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Figure 2 Development of consciousness leads to a shift in emphasis from outer-directedness to inner-directedness and self-referral

to satisfaction and the following approximate equation[3]:

$$S = S_{OR} + S_{SR} \qquad (1)$$

where S = the total satisfaction or happiness at any moment, and S_{OR} and S_{SR} are the contributions of object-referral and self-referral respectively. The first is object-dependent and the second is object-independent or self-dependent. There will be more about this equation later.

Theme 2: Second-order change
We need to define what we mean by change. According to Watzlawick *et al.* (1974) there are two categories, which complement each other. First-order change deals with alterations which take place within a certain system without affecting the system itself, e.g. "more of the same". Although this mode is effective in its own right, it does not have the capacity to solve many more basic issues (please refer to the above list). In such cases, there usually is a need for second-order change which fundamentally changes the system itself. "Second-order change is thus change of change… Changes in the body of rules governing…internal order… Second-order change is always in the nature of a discontinuity or a logical jump…" (Watzlawick *et al.*, 1974, pp. 11-12). There are several other terms describing second-order change, such as non-routine learning (as opposed to routine or programmed learning), reframing or frame-breaking (as opposed to frame-preserving), path finding (as opposed to path following), and transforming. This paper is concerned with second-order change and non-routine learning.

Theme 3: Change and non-change
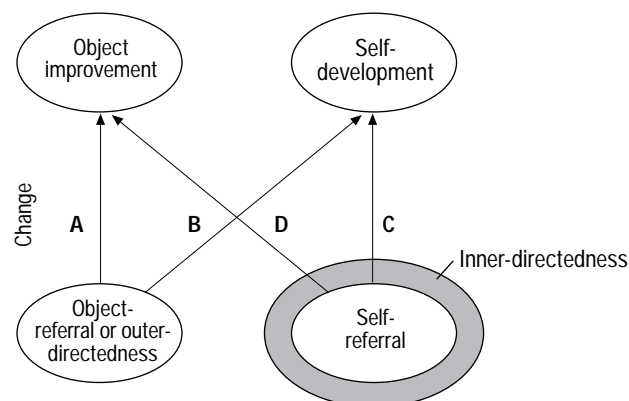In a change process there are two poles of change and non-change. For instance, in any given situation we want to change that which needs improvement, and maintain that which is acceptable. Another example is provided by our values that constitute a stable platform for the flux of our feelings, decisions, thoughts, and actions. Even though these two poles initially may appear to be opposed to each other, they are in fact complementary. Without a stable basis, change becomes risky; and stability without change leads to stagnation.

Overview of four complementary modes of change

This subsection will introduce different modes of change within the framework of object-referral and self-referral. There are four basic modes of change: modes A and B are connected to object-referral, while modes C and D are related to self-referral (see Figure 3). Research suggests that object-referral is the pervasive feedback and behavioural mechanism in earlier stages of development, which is the situation for the majority of adults in contemporary society (Cook-Greuter, 1994; Torbert, 1991). However, the world view – and consequently the ability to change and adapt – is gradually transformed with development of consciousness. For this reason it is unfortunate that only very few reach the mature stages of growth where inner-directedness dominates, and much fewer indeed achieve stable self-referral. In fact, Harung *et al.* (1996, p. 119) claim that this feature typically is operational only in rare world-class performers.

Maslow (1968) proposes a similar typology. Earlier developmental stages he places in the category of deficiency motivation, thereby implying that the individual needs others (i.e. from outside) to gratify her or his basic

Figure 3 Four modes of change

needs for safety, belongingness, love, respect, and self-esteem. Mature phases of psychological development are characterized by growth motivation where the individual is primarily motivated from within and the main focus is on the actualization of one's own full potential and on higher human values such as truth, beauty, and justice.

In the following, we will first consider outer-directedness. Then we move on to inner-directedness which is examined in two sections: higher stages of psychological development in contemporary social science and higher states of consciousness in Maharishi's Vedic Psychology.

II. Outer-directedness or object-referral change

Modes A and B represent object-referral change. Mode A deals exclusively with changing objects; both the motivation for change and the results thereof are on the level of objects. Mode B is characterized by the same motivation as in mode A, but the process is directed towards changing the actor.
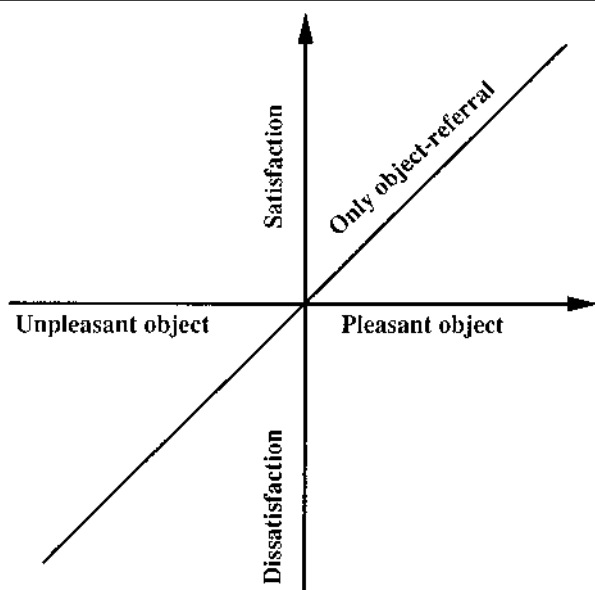
When considering the two outer-directedness modes in isolation (i.e. excluding inner-directedness), our sense of satisfaction is entirely object-dependent. It follows from equation 1 that when the object is pleasant, the result of our experience is satisfaction (see Figure 4). In contrast, when the object is not charming, the result is dissatisfaction. We are

Figure 4 The dependency of satisfaction on the nature of the object when only object-referral

therefore in a fragile state of life, where we have unsatisfactory control of our own destiny. Since the actor is not anchored in a stable basis of non-changing self-referral, change alone tends to dominate the scenario. The following quotation by Heraclitus typically captures this state: "There is nothing permanent except change" (quoted in The Performance Group, 1993a, p. 12).

Even though change dominates in mode A and B, non-change is nevertheless present also here. The laws within the natural sciences provide obvious illustrations of this non-change, e.g. at the basis of the enormous innovations in electronics and high technology, the laws of electromagnetism have remained the same, governing electrons whirling around at almost the speed of light within the material of the chair on which you are now probably sitting. At the most basic level of our physiology, the genes are maintained throughout generations as a highly stable structure that forms the blueprint of the wide range of human activity.

In the social sciences, we also find principles of non-change in change. When compared to the concrete laws of natural science, these non-variant mental or social themes tend to be more subtle. Nevertheless, they are equally real. Two of these natural laws are central to this paper. First, it is a law of life that all people want progress and happiness (Maharishi, 1966). Second, the ability to realize this desire primarily depends on the stage of development (Maharishi, 1972).

Mode A: object → object
In this mode the impetus, process, and results of change are all on the level of objects. At this most expressed level of life the need for change is frequently readily evident, and change may be easy to implement. Examples are mechanical work like washing up dishes, decorating a wall, or repairing a defective car. This mode has resulted in impressive progress in concrete fields of knowledge like chemistry, engineering, and information technology (Harung, 1993). Within business and industry this strategy has also resulted in desirable change in terms of dramatic increases in manufacturing productivity, rapid expansion of an operation, and radical process redesign (e.g. business process re-engineering). However, mode A has not been satisfactory in causing progress in the more elusive areas of social science dealing for instance with

satisfaction, meaning, motivation, and lifestyle (Harung, 1993; Torbert, 1991). As a result we find a range of interpersonal and antisocial problems that continue to block performance and quality of life in business and society.

Dahl (1990) presents an interesting application of mode A to facilitate change in the direction of higher performance. Over time Dahl and his collaborators have found consistently that low performance results when we are:
(1) Forced to wait.
(2) Doing things that no one on earth should be doing.
(3) Doing things that should be done, but not by us.
(4) Not planning our work.
(5) Doing work in a manner that wastes resources.

Based on several audits, Dahl (1995a) and his colleagues have estimated that 92.1 per cent of the individual's time at work could be made more productive. Once the potential for improved productivity has been established, the logical next step is to reallocate the freed resources to where they will yield the highest returns (Dahl, 1990).

'…Our values, attitudes, and feelings translate themselves into our thinking and action. If we have healthy and productive values and attitudes, there is no need to change them…'

Applying their procedures, Dahl (1993) and his collaborators have "seen organizations undergo dramatic and rapid improvements in results, job satisfaction, and job stress". In spite of this, several challenges remain. First, typically the full change potential is not realized. One reason for this may be that the motivation to redeploy resources is "external", not necessarily involving ownership or internalization in those whose task it is to implement the change. Second, and related, mode A normally does not fundamentally affect the actor and his or her enduring values and attitudes.
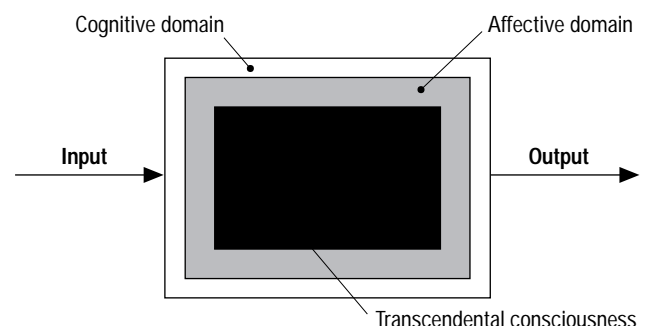
Mode B: object → self
Dahl (1993) observes, in accordance with common experience, that it frequently is not sufficient to define desirable change on the cognitive level. This, since action is not primarily motivated by logical or factual knowledge, or since those involved may lack the capacity for change, or may resist it (Senge, 1994). This exposes a major shortcoming of mode A: it typically does not permanently transform the actor to a higher capacity for change and performance.

This drawback can be illustrated by considering the direct bearing a person's sense of reality has on her or his behaviour. Our values, attitudes, and feelings translate themselves into our thinking and action (Harung and Dahl, 1995). If we have healthy and productive values and attitudes, there is no need to change them. On the other hand, if our world view is not comprehensive enough, fundamental change is to be desired. Unfortunately, developmental transformations are difficult to achieve in adults (Alexander *et al.*, 1990; Garavan, 1997; Maslow, 1968; Senge, 1994; Torbert, 1991). For this reason, the typical situation today appears to be that only the cognitive domain is within the range of conscious awareness, and the much more potent affective domain is beyond it (Harung, 1996). Figure 5 illustrates this mostly black box picture of the human mind. As a consequence, less than ideal values and assumptions often continue to form the relatively non-changing basis for human action. In this way, we are locked into a paradoxical situation where we have non-change where there is a real need for change (values and emotions), and change where it would have been acceptable and often even beneficial with less change (on the level of thinking and acting).

One of the unfortunate consequences of limited conscious awareness, is that the majority of the change programmes tried in

Figure 5 The mostly black box picture of the mind

business and industry do not yield the desired results.

I propose that the reason why total quality management (TQM) has failed in so many companies[4], why quality and productivity improvement efforts more often than not do not last, and why beautiful plans evaporate in their encounter with reality is this: *change takes place in the affective domain*. This is the domain of feeling, of engagement, of participation, of commitment, of enthusiasm… whether we succeed or not depends on our understanding of…what it is inside us that fuels our desires and those of others (Dahl, 1993, italics in original).

I believe that such change programmes as a rule are effective only when they utilize a change capacity that already exists. By this I mean that the average person in an organization possesses a developmental stage which permits a certain capacity for performance, but that for one reason or other, thinking and behaviour is not fully utilizing this capacity. Or such programmes may work when they foster the re-arrangement of priorities within an existing capacity or structure. Alternatively, apparent change may in reality represent a temporary artefact which has not been internalized by the actor. In summary, I question to what extent common change programmes will in themselves create a significant growth of capacity.

Broekstra (1995) goes further than this and advocates that the vast majority of contemporary business change programmes or "fads" in reality may cause more harm than good. Since there are deep structures within organizations that tend to preserve status quo, he argues that it is futile to attempt to change things at the superficial levels. Such attempts just cannot produce lasting improvements, but instead inevitably lead to stress and frustration amongst those involved. For this reason Broekstra argues that the attention should be shifted from "doing" to "being", i.e. from object-referral to self-referral in Maharishi's terminology.

Dahl (1993) has for many years been investigating how change obstacles can be overcome. According to him, change will tend to be lasting and worthwhile if it increases satisfaction, increases control, and reduces stress of the actor (see also Russell and Mehrabian, 1977). Based on this he proposes to arrange "outer" change so that it fulfils

these "inner" parameters, i.e. an "outside → in" or "object → subject" approach where the enhancement of Dahl's three factors is built into work – especially satisfaction, which is the most important of the triplet. "Through the application of a set of principles that guide the achievement of satisfaction, stress, and control, there are ample examples of subjective change in work attitudes, regardless of the nature of the work itself" (Dahl, 1995b). He goes on to state that "I am not saying this is simple, or even very common, but I have seen it in innumerable work situations that would appear to be stupefyingly boring to outsiders, but filled with personal meaning and joy to the work performer."

I acknowledge Dahl's deep insight; mode B certainly complements mode A, and increases the likelihood of successful change. However, it seems unlikely that modes A and B alone will be able to provide for the whole range of necessary changes, especially those which are "intra-personal". For this reason there are several unanswered questions. First, can we in general reconcile modes A and B with the necessity for spontaneous action, i.e. the individual's need to freely express herself or himself? Building on the work of Carl Rogers and other behavioural scientists, Bolton (1979, p. 102) argues that the less a person is under external influence to change, the more likely it is that change will occur. By saying this, I am not advocating that those with more knowledge and experience should not direct those who are less competent. However, it seems that human nature is such that advice should be kept to the essential minimum, and as far as possible be offered in a nurturing and uplifting way.

Second, even though Dahl argues that he has succeeded in creating meaning in boring work, does this in general apply to routine work and unpleasant challenges? Third, and most important, to what extent will mode B fundamentally affect the subject in a lasting way? To achieve this, we need to access the affective domain, as Dahl rightly points out. However, common experience indicates that the cognitive appreciation of this need does not, as a rule, in itself give us access to the affective domain. For this reason, we frequently experience the issues which we have sorted out on the cognitive level, may still continue to plague us on the emotional level (Harung, 1996).

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Research related to mode B in general can be used to shed some light on the above questions. Csikszentmihalyi (1991, p. 2) writes "…we cannot reach happiness by consciously searching for it". He studied a large number of "flow" experiences, which are said to involve harmony, enjoyment, creativity, loss of ego, and focus. He writes that by arranging the external conditions in special ways (i.e. a challenging task, but not so challenging that it outstrips one's level of competence), these kinds of experiences can be promoted. However, the experiences are only temporal, and Csikszentmihalyi does not report on any long-term developmental effects for those involved.

'…"Self-knowledge and self-improvement is very difficult for most people. It usually needs great courage and long struggle"…'

In order to foster human transformation, Maslow (1968, p. 205) argues for the need "to enhance all the advantages of forward growth and all the disadvantages of not-growing, and to diminish all the disadvantages of growth forward and all the advantages of not-growing". Maslow clearly recognized the many benefits from growing into a healthy individual, and he also stated that such transformations in principle are easy. Even so, he nevertheless observed that in practice it rarely happens: "Self-knowledge and self-improvement is very difficult for most people. It usually needs great courage and long struggle" (p. 166). The overall conclusion in the field of Western developmental psychology and management is in accordance with the point of view of Csikszentmihalyi and Maslow: self-development is typically difficult to realize in practice (Loevinger, 1976; Torbert, 1991).

Summarizing, modes A and B are based on an object-dependent sense of satisfaction and control. In this situation, change often seems to be caused by a less pleasant "push"; the sense of insecurity and dissatisfaction constantly pushes us into new activity in an ever-lasting quest for satisfaction. This may explain the current overemphasis on "doing". However, in itself object-referral is not adequate in providing for stable happiness and autonomy, since this is an inner reality (Maharishi, 1966). We therefore need to turn to inner-directedness in order to fundamentally improve the capacity for change. This is the topic of the next two sections.

III. Inner-directedness and higher stages of psychological development in Western psychology

My father said that if you must make decisions and not make mistakes, you must listen with your heart and soul. I asked him how that is possible, and he said you must get your first influence and answer from inside your heart. After three or four seconds your brain starts to analyze, to influence your decision. Your heart and soul answer must be first. If you do not manage this, you can go wrong (Mariss Jansons, conductor, quoted in The Performance Group, 1993b, p. 29).

This and the subsequent section deal with inner-directedness, the process of directing our attention inwards to the deeper and more subtle levels of the mind connected with feeling, intuition, individual ego, and transcendental consciousness. This is the process of "opening up" the black box part of Figure 5. In section III we will present a short description of higher stages of psychological development from Western psychology. This range of development bridges the gap between outer-directedness (section II) and self-referral (section IV). According to Maharishi (1972, lesson 1) the ultimate cause of problems and suffering is weakness. In this vein, we will argue that development of consciousness progressively provides the individual with strength and maturity needed to address issue 1, thereby providing the basic capacity to address all the change issues listed in section I.

Contemporary Western social science has described a number of stages of psychological development up to and including becoming consciously aware of the deep feeling level and the individual ego. This development transforms a person's world view and increases his or her insight into the workings of life (addressing issue 11). Examples of resulting shifts in emphasis are from efficiency to effectiveness (issue 2), from conventional to post-conventional (issue 3), from resistance to innovation (issue 6), from control to collaboration (issue 6), from part to whole (issue 8), and from win-lose towards win-win strategies in interpersonal relationships (issue 10; Torbert, 1991).

Psychological development culminates in what Loevinger (1976) denotes the integrated stage and Maslow (1968) self-actualization. According to Maslow (1968, p. 26), some of the characteristics of self-actualizers include greatly increased creativeness (issues 2 and 6), superior perception of reality (issue 5), increased spontaneity (issue 6), and increased autonomy (issue 6). The above developments correspond well with Senge's (1994, p. 16) deeper meaning of learning which "involves a fundamental shift or movement of mind" (p. 13), a re-creation of ourselves (p. 14), and developing our own capacities.

However, there are two major challenges in contemporary psychology and management. First, the above developmental range falls far short of several higher states of consciousness which go beyond and dramatically extend the range of growth as commonly understood in Western psychology (Alexander *et al.*, 1994; Harung *et al.*, 1995, 1996). Even though certain Western scholars (e.g. Maslow, 1968) may have glimpsed these most advanced stages of human evolution, we need to turn to the ancient Vedic tradition of India in order to get a comprehensive theoretical picture of higher states of consciousness. This knowledge has today been revitalized by Maharishi Mahesh Yogi in formulating his Vedic Psychology (Maharishi, 1966, 1972). It is in the light of Maharishi's interpretation that we will refer to Vedic Psychology in this paper.

Very few adults reach the mature psychological development as just described. Cook-Greuter (1994, p. 124) examined over 3,000 subjects and concluded that less than 1 per cent of those tested had reached self-actualization (several other studies confirm this, see Alexander *et al.*, 1994). Much fewer still move beyond to higher states of consciousness (Alexander *et al.*, 1990; Maslow, 1968). This means that most people are confined to the domain of outer-directedness. It is therefore gratifying that a simple mental procedure from Vedic Psychology – transcendental meditation[1] – provides for systematic transcendence (see right hand part of Figure 1).

A ten-year longitudinal study (Alexander *et al.*, 1994) compared one group practising the TM technique with three non-meditating control groups. Approximately 40 per cent of the experimental group achieved the endpoint of development in Western psychology, compared to 1 per cent for the control groups. At the same time, transformations to higher

states of consciousness are also created (Cranson *et al.*, 1991). These advanced stages will be the topic of section IV.

IV. Self-referral and higher states of consciousness in Vedic Psychology

Following the above brief section on inner-directedness in general, we will now consider in more depth higher states of consciousness and modes C and D. According to Vedic Psychology (Maharishi, 1972), there are seven states of consciousness. Modern psychology is concerned with the familiar first three states of consciousness: waking, dreaming, and sleep. In fact, the stages of psychological development just discussed are substages within the waking state of consciousness (Alexander *et al.*, 1994). This range covers development as far as conscious awareness of the individual ego. Beyond this, Vedic Psychology locates four higher states of consciousness, which are all related to transcendental consciousness. Due to space limitations, we will restrict ourselves to the first two: transcendental consciousness, where inner silence exists on its own (mode C), and cosmic consciousness, where inner silence coexists with dynamic outer activity (mode D).

Section III argued that mature stages of psychological development had beneficial effects on our capacity to successfully handle the change issues listed in section I. Higher states of consciousness will accelerate this development and further enhance our capacity for change and performance in a fundamental way. It lies beyond the scope of this paper to examine all the listed change issues in light of higher states of consciousness. Instead, we will limit ourselves to illustrate the significance of such developmental transformations by considering the three characteristics referred to by Dahl (1993) as important for high performance. Through increasing access to more intimate and fundamental levels of our mind, our life naturally shifts towards a baseline of more satisfaction, more control, and less stress.

Mode C: self → self
This purely self-referral or subject-referral mode is the process where the doer is experiencing the deepest aspect of himself or herself, addressing fundamentally the question "Who am I?" and the ancient Greek axiom "Know thyself". Penrose (1991, p. 407)

appears to be referring to this kind of experience when he writes "… I may even just be conscious of my own consciousness". Maslow (1968, p. 182) uses the term "intrapsychic" to describe the process "of turning away from the outer world", and states "I would certainly argue the case for an enjoyment of consciousness itself." He refers to such "peak experiences" in terms of transcendence of time and space and "the great full awakening" (Maslow, 1971, p. 275). Maslow also states: "My feeling is that…the power of [one peak] experience could permanently affect the attitude toward life" (1964, p. 75).

This point can be illustrated by considering the writings of former president of Egypt, Anwar El Sadat, who won the Nobel Peace Prize for his pioneering work to create peace in the Middle East. As a young man Sadat had several peak experiences while in political prison, a time which he recognized as the turning point in his life. He describes his experiences in words like "I was able to transcend the confines of time and place…Everything came to be a source of joy and delight… the achievement of perfect inner peace, and so provide a man with absolute happiness." From then on, he writes, "My paramount object was to make people happy" (Pearson, in press, pp. 190-1).

There are many descriptions of spontaneously occurring transcendence in the West. For instance, William Wordsworth describes transcendence in his poem "Tintern Abbey" (quoted in Wallace, 1993, p. 37):

> …the serene and blessed mood,
> In which the affections gently lead us on, –
> Until, the breath of this corporeal frame
> And even the motion of our human blood
> Almost suspended, we are laid asleep
> In body, and become a living soul:
> While with an eye made quiet by the power
> Of harmony and the deep power of joy,
> We see into the life of things.

In Vedic Psychology, full self-referral is only possible when the mind is in its simplest and most settled state – transcendental consciousness. "In its 'self-referral' state, or transcendental state, consciousness knows itself alone; as such, it is the knower of itself. By being the knower of itself, it is also the object of knowledge and the process of knowing. Thus, in its self-referral state, consciousness is the unified state of knower, knowing, and known" (Maharishi, 1994, p. 59).

Today, there are an increasing number of credentialed physicists discussing the fundamental role for consciousness in a unified description of the laws of nature (Hagelin, 1987; Penrose, 1991). In fact, it has been proposed, both in quantum physics and in Vedic Psychology, that there is one, unified field of natural law underlying, and being common to everything in creation – consciousness and matter (Hagelin, 1987). In this unified picture, transcendental consciousness is seen as this ultimate constituent of life, the source of natural law (Maharishi, 1976, 1986). "The self-referral state of consciousness is that one element in nature on the ground of which the infinite variety of creation is continuously emerging, growing, and dissolving. The whole field of change emerges from this field of non-change…" (Maharishi, 1986, p. 25).

The experience of transcendental consciousness will now be further examined in the light of Dahl's three criteria:

1. Increased satisfaction. Transcendental consciousness is described in Vedic Psychology in terms of "Sat-Chit-Anand" where Sat means eternal, Chit consciousness, and Anand is intense happiness or bliss (Maharishi, 1967, p. 325). Wordsworth's description is similar to this when he talks about a "blessed mood" and "deep power of joy", while Sadat used the term "absolute happiness". The word "Sat" is important in the context of this paper; it indicates that transcendental consciousness is a field of non-change.

2. Increased control. The experience of the unified field cannot be brought about by control or concentration. In the words of Maslow (1968, p. 113) "peaks are not planned or brought about by design; they happen". However, TM systematically promotes settling down of mental activity (see the right hand side of Figure 1) – culminating in the transcendence of even the faintest thought – since it is a completely effortless process of non-control and letting go. TM is therefore a technique of "systematic non-control" where the mind naturally gravitates towards transcendental consciousness, motivated by its intrinsic and unceasing search for more happiness (Maharishi, 1966). Paradoxically, while transcendence is characterized by non-control, it at the same time represents an experience of self-sufficiency, fulfilment, and,

accordingly, being in control (Maharishi, 1967).

Are there alternative ways of promoting transcendence? Harung *et al.* (1996) investigated world-class performers and found that their frequency of experiencing an inner state of silence (mode C) was much higher than for the average population. It was apparent from these accomplished performers that their experience of transcendence often was associated with more exceptional circumstances, i.e. physically removed from home to some quiet or scenic place, listening to a concert, during celebrations, etc. However, such quiet moments are rare in the highly demanding lives that most of us live today. In addition, common experience shows that even in such favourable circumstances transcendence is rare and random – it cannot be systematically brought about.

'…The effectiveness of TM in relation to other methods has been supported by major meta-analyses which compared available research. These found that TM was most effective in reducing stress…'

Today, there exist a number of concentration or contemplation methods which aim at causing human evolution. However, it seems that these methods tend to maintain the mind on the active levels because concentration and contemplation *per se* represent mental activity. For this reason transcendence, the key experience in promoting fundamental developmental shifts (see above), is not facilitated. In contrast, a systematic opportunity for retiring fully from the domain of activity, during the normal setting of life, is provided by twice daily practice of TM. The effectiveness of TM in relation to other methods has been supported by two major meta-analyses which compared available research. These studies found that TM was most effective in reducing stress (Eppley *et al.*, 1989; see below), and in increasing self-actualization (Alexander *et al.*, 1991). According to Maharishi (1966) TM is most effective because it is simple, effortless, and natural.

3. Decreased stress. The verse from Wordsworth reflects that the experience of transcendental consciousness is accompanied by a state of deep physical rest ("breath…

almost suspended, we are laid asleep in body… eye made quiet") combined with mental alertness ("become a living soul"). Contemporary research on TM supports Wordsworth's insights by showing that transcendence is a state of restful alertness (Wallace, 1993). "Unlike sleep or relaxation, in which the body is resting but the mind is either unconscious or dull, transcendental consciousness is a state in which the body is resting deeply while the mind is filled with unbounded awareness and bliss" (p. 60). It therefore appears that transcendence is a state of minimal stress, arousal, and excitation. These qualities are reflected by Sadat's experience of "perfect inner peace", as quoted above.

Summarizing, the above considerations indicate that the experience of transcendence in one stroke satisfies Dahl's three criteria for lasting and desirable change. The next subsection will consider what happens when this non-changing inner basis coexists with dynamic outer activity in an advanced synergy between stability and adaptability.

Mode D: self → object
The last mode to be described captures the process of acting while established in self-referral consciousness, i.e. the coexistence of inner non-change and outer change. According to Vedic Psychology, the different levels of the mind are seen as different expressions of the underlying non-localized and all-pervasive field of consciousness (Maharishi, 1986, 1994).

In a similar way, Zohar and Marshall (1994, p. 84) use the following analogy "…we might think of the background state of consciousness…as a pond, and all the contents of consciousness – our thoughts, images, emotions, memories, etc. – as ripples on that pond". This point can be illustrated by considering an analogous picture in quantum physics. Here the elementary particles and forces – the building blocks of matter – are seen as localized focal points in invisible, all-pervasive, and non-localized underlying fields, e.g. electrons are just concentrations in the electromagnetic field (Harung, 1996; Zohar and Marshall, 1994).

We have already argued that at present functional or conscious awareness is typically restricted to the cognitive domain (see Figure 5); the deeper levels of the mind are beyond conscious reach. On the way from the

cognitive domain to transcendence the mind moves through the affective domain. Each time we transcend, we exit completely from the cognitive and affective domains, and enter fully into the domain of transcendental consciousness. We experience the underlying field of consciousness in itself – we experience the pond without any ripples. This process transforms a portion of subconscious awareness into functional awareness. Increasingly "We see into the life of things", to quote Wordsworth (issue 11). Consequently, we move a little more towards the high performance domain, as shown by research on TM (see below).

Over time, systematic transcendence results in continuous conscious awareness even of the deepest levels of the mind. This gradually causes a transformation to "cosmic[5] consciousness" where the non-changing experience of transcendental consciousness is maintained together with the shifting states of waking, dreaming, and sleep. In this way, transcendental experiences restructure the individual's knowledge of himself and the world, bringing about permanent growth and enhanced feelings of wellbeing (Alexander *et al.*, 1990; Maharishi, 1967).

Action based on the non-changing basis of inner bliss is said to provide the most stable foundation for optimum change and learning in the direction of greater progress and accomplishment, resulting ultimately in the potential for peak performance (Harung *et al.*, 1995, 1996). The common notion of peak performance is that it is temporary and restricted to a narrow domain of action, i.e. putting a golf ball. In contrast to this the notion of peak performance advocated in this paper is continuous and generalized, with the potential for application to a wide range of human activity.

There are several categories of research which support the notion that improved capacity for learning and performance primarily depends on development of consciousness. Some of this research has already been examined, i.e. the impact of systematic transcendence and mature stages of psychological development. Additional evidence is provided by:

- Further research on the effect of systematic transcendence through TM (Alexander *et al.*, 1990; Schmidt-Wilk *et al.*, 1996): reduced anxiety; job tension, and fatigue; greatly improved health; enhanced

creativity, learning ability, positive affect, self-esteem, moral development, effectiveness, job performance, and job satisfaction. These findings are important since they illustrate that developmental shifts can be accomplished in practice. Without such findings, this paper would have a limited significance.

- A recent study found that some of the world's most accomplished performers experienced mode D much more frequently than the general public. The experience which was found to be more common to the world-class performers than others, was: "Have you experienced that while performing activity there was an even state of silence within you, underlying and coexisting with activity, yet untouched by activity? This could be experienced as detached witnessing even while acting with intense focus" (Harung *et al.*, 1995, 1996). This experience captures the essential synergy between the change and non-change characteristic of mode D.

- Subjective experiences of persons enjoying peak performance often reveal features belonging to higher states of consciousness. For example, one of the greatest tennis players in the history of the sport, Billie Jean King reports the following experience suggestive of a glimpse of the state of cosmic consciousness:

    It almost seems as though I'm able to transport myself beyond the turmoil on the court to some place of total peace and calm. Perfect shots extend into perfect matches… I appreciate what my opponent is doing in a detached abstract way. Like an observer in the next room… It is a perfect combination of [intense] action taking place in an atmosphere of total tranquility. When it happens I want to stop the match and grab the microphone and shout that's what it's all about (King and Chapin, 1974, p. 199).

Characteristics of transcendental consciousness coexisting with activity are indicated by words such as "beyond the turmoil on the court" in "some place of total peace and calm" and "total tranquility". Even though she is performing with great dynamism, she feels "detached" from the field of action "like an observer in the next room". Consistent with the predicted association of spontaneous right action with the growth of cosmic consciousness, her play is perfect: "perfect shots extend into perfect matches… perfect combination

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of action taking place in an atmosphere of total tranquility".

Let us look in more detail at the effects of growing self-referral on activity in terms of Dahl's (1993) three factors. Thereafter we will consider timely change.

1. Increased satisfaction. With the development of consciousness, the self-referral component of equation 1 starts to become more and more prominent (see Figure 6). The result of this is first that the degree or depth of satisfaction is enhanced. Second, happiness becomes more stable, reflecting a sense of satisfaction which increasingly becomes a permanent inner, object-independent reality. For these two reasons it becomes increasingly difficult for the object-referral component to fundamentally change the mood into dissatisfaction. According to Dahl (1993) high performance is closely associated with satisfaction: "The greatest linkage to high potential is satisfaction, followed by control. Low stress is a close third."

Maslow (1968, p. 31, italics in original) observed in a similar way that "activity can be enjoyed either intrinsically, for its own sake, or else have worth and value only because it is
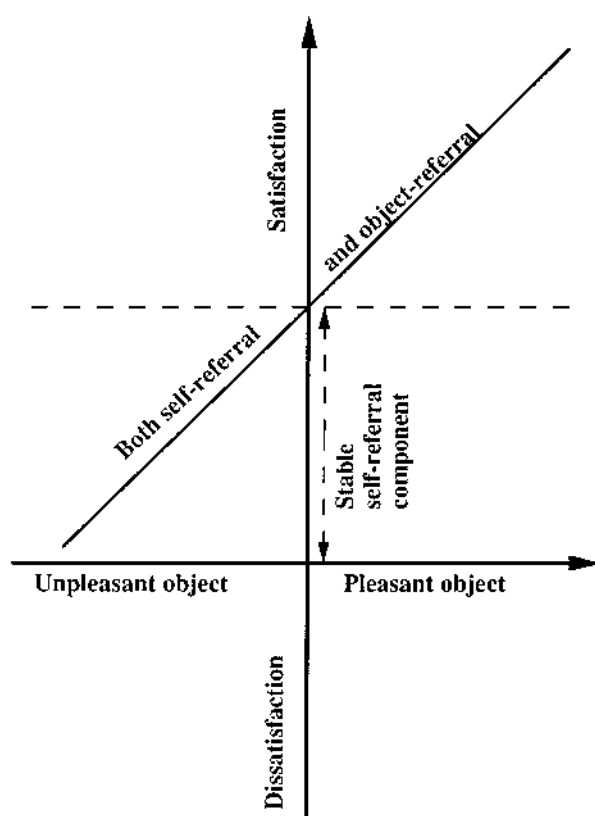
instrumental in bringing about a desired gratification… More frequently, it is simply *not enjoyed at all*, but only the goal is enjoyed… [mature] people enjoy life in general and in practically all its aspects, while most other people enjoy only stray moments of triumph, of achievement or of climax…"

The positive effect of growing self-referral on satisfaction (equation 1) is further strengthened by the object-referral component also not being static. Instead, with development even this component appears to change in a positive direction. It was Maslow's (1968) experience that more mature people had an increasing tendency to choose those types of activities which where good for them and which they enjoyed. In Maslow's terms "authentic selfhood" implies that one is able "to know what one really wants or doesn't want, what one is fit for and what one is not fit for" (p. 191). In addition, Maslow (1968) and Torbert (1991) claim that mature and healthy people grow in the ability to simultaneously satisfy their own needs and those of others (issue 10). Both factors will contribute towards the objects becoming more pleasant.

Even the environment, in which both the actor and his or her actions are embedded, can change with human transformation (Maharishi, 1972). Gustavsson and Harung (1994) provides evidence which supports that when only a small fraction[6] of a population systematically transcend, they contribute significantly to create a more evolutionary and harmonious social system. All in all, it therefore seems clear that development of consciousness provides the foundation for change and action fuelled by satisfaction. With increasing stable inner happiness one naturally becomes less dependent on the outcome of one's actions, and therefore more able to let go (issue 4).

2. Increased control. Dahl (1993) uses this term primarily to distinguish whether people feel they are in control of their work or not, i.e. the leadership-followership relation where the leader is in control, and the follower not. This is based on Russell and Mehrabian's (1977) original conception of dominance-submissiveness. Transformation to higher stages of psychological development results in: improved autonomy; respect for individual differences; moral capacity for empathy; increased acceptance of self, others, and of nature; mutuality rather than hierarchy in relationships; openness to feedback; creative

Figure 6 The relationship between satisfaction and the nature of the object when both object-referral and self-referral

conflict resolution; and empowerment of others (Torbert, 1991). There is a shift towards decreased need and tendency for dominance (Maslow, 1968). This development will be brought further in higher states of consciousness.

What are the effects of such transformations on the leadership-followership relation? In this respect Dahl (1993) talks about two ways in which we can understand the word control "…we have come to identify pull control variables (participative management, downward delegation, consensus management) as distinct from push control variables (autocratic management, bureaucratic management, management through intimidation). People being controlled by pull variables seem to be more satisfied than people being controlled by push variables." Fortunately, systematic transcendence brings a change in one's sense of reality from the former category to the latter, thereby laying the ground for more evolutionary control (issue 5; Maslow, 1968).

It is typical in contemporary society to ascribe superior merit to leadership behaviour in contrast to followership behaviour. Dahl (1995b) writes that "I don't believe this is either true or necessary. One cannot have leadership without followership, or vice versa." In our lives we need to frequently shift into leadership or followership modes, whether we lead a team, or listen to a lecture, or ask someone for advice. Once we rise in self-sufficiency and the ability to let go, it is likely that this shifting will become more and more effortless. In mature development, the dominance-submissiveness issue will therefore lose its grip, and the leader-follower relation will not be in terms of enforced control or a power struggle rooted in the need to satisfy narrow egocentric needs, but contingent on what overall is most beneficial in any given situation.

It is for such reasons that a general raising of consciousness is a prerequisite for the desirable and currently vogue organization-wide implementation of empowerment and self-managing teams (Harung *et al.*, in review). The following quotation from the former president of Egypt, Anwar El Sadat, sheds light on these ideas (see above for his reported experience of mode C):

> I do not care for socially recognizable success. I only value that success which I feel within me, which satisfies me, and which basically stems

from self-knowledge… Inner success is a source of permanent and absolute power, independent of external factors; outward success fluctuates in response to changing circumstances and is therefore of a purely relative value… (Sadat, quoted in Pearson, in press, pp. 192-3).

3. Reduced stress. We need to carefully examine the term stress since it is the most difficult conception in Dahl's triplet. Stress can be defined as energy or arousal (Dahl, 1995b; Russell and Mehrabian, 1977). This notion can be explained by considering stress in relation to satisfaction. Stress and satisfaction together gives excitement (Dahl, 1993) – analogue to Hans Selye's (1984) eustress or "good stress". Stress in combination with dissatisfaction, Dahl terms discomfort – analogous to Selye's distress ("bad stress"). It is this latter connotation which is vogue today with respect to stress, and its long-term disadvantages for health and performance are well documented by experience and research (e.g. Selye, 1984).

Dahl (1995b) writes that "…stress is not in and of itself a variable that we always seek to reduce – we will prefer to reduce negative stress, but, on occasion, we may prefer to increase or decrease positive stress". Even though Dahl (1993) has found that in certain cases eustress may be advantageous in promoting enhanced performance, it will nevertheless accelerate wear and tear on the body over time. From the long-term perspective it therefore appears that stress in general should be reduced. And as this paper argues, it seems possible to do this at the same time that performance can be enhanced (issues 1 and 10).

The beneficial effect of systematic transcendence on reducing stress can be illustrated by a quote from Hans Selye: "The TM technique is a method which so relaxes the human central nervous system that…it doesn't suffer from stress… And I think if you can influence the nervous system through Transcendental Meditation so that it can really relax, really be at its best in responding… to any demand, that is an ideal solution" (quoted in Oates, 1976, pp. 214-17). In this way TM produces a win-win situation – the simultaneous reduction of stress and increased mental wakefulness leads to restful alertness.

Timely change. According to issue 7, the right timing is important for successful change. We have seen that with human evolution, there is a shift of priority from reaction

to proaction (Torbert, 1991). This will enable us to prevent potential problems from manifesting. An aspect of rising inner-directedness is growing intuition. That intuition is important for timing is evident from the following quote by the accomplished conductor Mariss Jansons (The Performance Group, 1993b, p. 107): "Without change we would not exist. The question is when to make changes. Sometimes you make changes too early. That can be destructive. The right moment for the right change is very important. I think this comes with intuition."

This paper has presented transcendental consciousness as the source of natural law. As we have argued, development of higher states of consciousness makes a person more and more familiar with transcendental consciousness. According to Maharishi (1995), this leads to a growing ability to spontaneously act in accordance with the laws of nature. Modern physics holds that all physical processes are governed by the principle of least action (Maharishi, 1995). On this basis, Harung *et al.* (1995, 1996, in review) propose that action in alignment with natural law will be action utilizing the principle of least action, i.e. doing least and accomplishing most. It is further anticipated that when we respond to the need of nature in any situation, the timeliness of action will be optimum (Maharishi, 1995).

The point about timeliness and action supported by natural law, can be illustrated by a quotation from Sir Roger Bannister. As a young man he became the first person in the world to run a mile in less than four minutes – one of the greatest accomplishments in the history of athletics. On the particular day of 6 May 1954 the "ingredients" needed for peak performance seemed to come together. Before the event there had been a gale-force wind that fortunately died down momentarily just before the start. Bannister describes his experience using words like:

> I had reached my peak physically and psychologically. There would never be another day like it… The gun fired… Brasher went into the lead and I slipped in effortlessly behind him, feeling tremendously full of running. My legs seemed to meet no resistance at all… We seemed to be going so slowly…I was relaxing so much that my mind seemed almost detached from my body. There was no strain… My mind took over. It raced well ahead of my body and drew my body compellingly forward. I felt that the moment of a lifetime had come. There was no pain, only a great unity of movement and aim. The world

seemed to stand still, or did not exist… I felt at that moment that it was my chance to do one thing supremely well… I knew I had done it before I even heard the time… (Bannister, quoted in Pearson, in press, p. 297).

There are several words which indicate that this was a glimpse of cosmic consciousness. The experience of deep inner silence, which remains unshaken even in the most dynamic activity, is indicated by "I was relaxing so much that my mind seemed almost detached from my body." Enjoying least action is suggested by "there was no strain" and "my legs seemed to meet no resistance at all". There are also signs of restful alertness. Even though Bannister was running faster than anyone else at that time, he used words like "we seemed to be going so slowly" and "effortlessly" to describe his experience of rest. At the same time, words like "my mind took over" indicates that he was experiencing a state of mental acuteness.

Conclusion

> The total development of our people is essential to achieving our goal of corporate excellence (Bill O'Brien, CEO of Hannover Insurance. Quoted in Senge, 1994, p. 143).

In this paper two main approaches to change have been presented. The first relating to outer-directedness or object-referral, the process of directing the attention outwards to the objects of perception and action. The second is concerned with inner-directedness, the procedure of turning awareness inwards to subtle levels of the mind connected to such faculties as feeling and self. Special emphasis has been given to self-referral, the experience of the most fundamental level of the mind – transcendental consciousness. The most effective approach to change is seen as a synergy of these complementary approaches.

While outer-directedness is common today, the availability of mature inner-directedness, and in particular of self-referral, is rare. In order to overcome this challenge, it is necessary to unfold deeper aspects of the mind. In this context, the paper claims that there exists a profound growth potential in humans, first to higher stages of psychological development in Western psychology, and thereafter beyond this to higher states of consciousness, as described by Maharishi's Vedic Psychology. Transforming consciousness in this direction may provide the actor

with a growing inner platform of happiness, autonomy, and restful alertness. At the same time research suggests that such a non-changing inner reality provides the stable foundation for greatly accelerated effectiveness in action. In this way we see how the synergy of objective and subjective modes of change leads to enhanced learning and performance.

Notes

1 The author first came across the term inner-directedness in Leavitt (1986, p. 115).

2 It is probably more appropriate to link the intellect and its ability to decide and discriminate to inner-directedness. However, since the intellect belongs to the cognitive domain, we have for simplicity included it in outer-directedness.

3 This equation is only meant to provide a tangible illustration of the relationship between object-referral and subject-referral. It must not be taken too literally.

4 An investigation of 500 companies in the USA found that only one third of the total quality programmes had given the desired results (Senge, 1994).

5 Cosmic means all-inclusive signifying that in cosmic consciousness the silent and non-changing wakefulness of transcendental consciousness provides a continuum which coexists with all the three changing states of consciousness: waking, dreaming, and sleep.

6 Research on cities and nations has observed a threshold effect when 1 per cent of the social system practises transcendental meditation – TM or the square root of 1 per cent practices the advanced TM-Sidhi programme in a group. For organizations, the threshold percentage is expected to be higher because the population is smaller – 1 per cent of an organization of 100 is only one person.

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