

IMAGE

AN ACTION RESEARCH JOURNAL
ON
PERSONAL AND ORGANISATIONAL TRANSFORMATION

THE INSTITUTE OF CULTURAL AFFAIRS and LENS INTERNATIONAL

IMAGE

AN ACTION RESEARCH JOURNAL ON PERSONAL AND ORGANISATIONAL TRANSFORMATION

The Action Research Journal is written to communicate designs, formats and ideas of transformational processes which promote the human factor in private and public sectors. It is published by the Corporate Services Division of The Institute of Cultural Affairs: India for distribution through the Asia Network of ICA and affiliated organisations. These include ICA: India (Bombay, Panvel and Pune), LENS Services Pvt. Ltd. (New Delhi), LENS International Malaysia Sdn. Bhd., ICA: Australia, ICA: Philippines, ICA: Taiwan, ICA: Hong Kong and LENS International Japan.

The Action Research Journal draws on a variety of sources including other ICA world-wide offices and affiliated professional consulting organisations to provide a spectrum of practical tools and constructs that facilitate individual and organisational transformation. We welcome comments and articles from our readers.

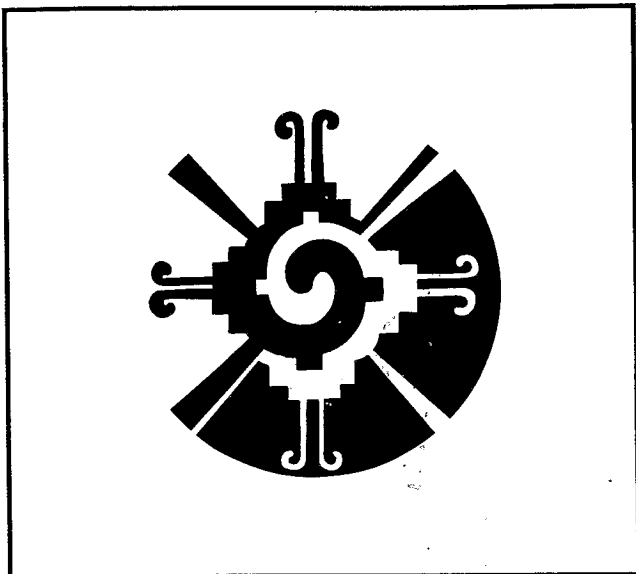
ISSUE TWENTY-ONE JULY 1994

"MIND - BODY - SPIRIT CONNECTIONS"

TABLE OF CONTENTS

| | | |
|----|-------------------------------|---|
| 2 | Journal Overview | An introduction to this issue |
| 4 | New Body Paradigm | Ancient, yet new wisdom from Dr. Deepak Chopra's new book, <u>Ageless Body, Timeless Mind</u> |
| 9 | Relaxercise | Based on pioneering work of Dr. Moshe Feldenkrais, concepts that re-programme the body/mind system |
| 11 | Tai Chi, A 'Soft' Art | Dr. Marguerite Theophil describes the body as a vehicle through which deeper learning and awareness of the culture takes place |
| 14 | Hearts and Minds | Dr. Dean Ornish prescribes a package of life-style changes to reverse heart disease |
| 18 | Body/Kinesthetic Intelligence | Simple but effective exercises to enhance body/mind connections through sensory images from David Lazear's <u>Seven Ways of Knowing</u> |
| 21 | Meditation: Four Portals | Anthropologist, Angeles Arrien explores universal meditation postures common to all spiritual practices |
| 23 | Experiential Learning | Educator and organizer of "Ropes" courses around the world, Reno Taini, Ph.D. describes the wisdom of learning from experience |

JOURNAL OVERVIEW



We truly live in a time of exploration into the interior resources available to us as human beings. Our search takes us on any number of paths, many of which have been charted from the dawn of consciousness. Today's pioneers in body/mind/spirit awareness offer us clues to a quality of life that has eluded us in a stress-filled world of sensory bombardment from morning until night. The diseases of stress and of separation from the core of our lives are with us in abundance.

I find in working with company managers and executives that there is a deep longing to recover the body source of knowledge which is there from our ancestors' natural patterns and to put that knowledge into the habit patterns of our lives. In my experience in working with groups on problem solving and decision-making, if "body work" is a prelude to each day, people experience not only higher energy to tackle group work, but also the willingness to shift one's perspective and be open to new ideas. We have forgotten how to learn from the body. Many people confess that they "exist" only in the head, with the result that the body's only purpose in life is to simply carry the head around so work can get done. Therefore, working with the body, mind and spirit connections becomes a necessary agenda item in planning and orchestrating the day. Where residential programs over several days allow for people to personally experience the difference in working in their own bodies on a regular basis, many resolve to take a proactive relationship to develop some form of daily body awareness practice.

The key to making this effective is to start with the body and gradually increase awareness about the natural process happening in our experience. We develop the possibility within ourselves that each of us can bring awareness to body functions and movements. The well documented feats of yoga,

and the research from biofeedback laboratories, demonstrate that consciousness can be extended through our bodies which results in improved health, and increased orchestration of perception and coordination. Our bodies receive and interpret thousands of pieces of information every second, and infinitesimal adjustments are made in our body chemistry, muscles and nervous system of which we may not be consciously aware. Drs. Jean Houston and her husband, Robert Masters, have researched the role of psychophysical re-education and memory for more than 25 years. Through their books, The Possible Human and Listening To The Body, and through programs conducted worldwide, they have developed many exercises that extend the natural capacity for body awareness, so that individuals can tap into the body's basic wisdom and enhance its natural healing process.

Many of us experience a sense of alienation and separation between our mind and spirit, and our body, and thus distrust our physical nature. This may be most true in industrialised cultures where medicine, education and social planning are often modeled on mechanistic and technological processes. The possible ecological holocaust of the planet has evolved until today we have the dying of the earth going hand in hand with the epidemic spread of diseases of stress and dissociation - cancer, arthritis, heart disease, and schizophrenia. The pollution of air and water, and the erosion of soil and earth, are only the dark resonance of what is happening in our hearts, our joints, our cells, our arteries. By failing to care for the ecology of our bodies, we have committed destruction on the rest of the world.

Yet, in many cultures, past and present, the wedding of body and spirit is known and celebrated. There are so-called primitive societies where sensory-motor development and sensory faculties are highly refined. Honoring the body as an instrument of intellectual and spiritual knowing has been developed throughout many Eastern cultures, for example, in yogic and breathing postures or in the martial arts. For practitioners of the Buddhist, Hindu, Tantric and Taoist disciplines, the body is, as it was for the Egyptians, the supreme temple of transmutation, the place where all the forces of the universe gather to be channeled and transformed into a higher integral order of nature and spirit. In many places around the world, holistic health, yoga, ayurveda, martial arts, methods of ancient Tibetan energy harvesting, rebirthing, acupuncture, Sufi-dancing, polarity balancing, biofeedback, etc. are becoming more popular. It is as if every discipline of healing, health and becoming whole are being called back into practice so that we might have the richest possible inventory of psychophysical opportunities with which to reinvent ourselves. The planetary

memory banks of body-mind transformation are becoming available in ways that they could never be before.

Posture and Awareness. If you notice your own posture in different situations (the position of your neck, your back, your shoulders) and then observe the fluidity and balance of your posture when you are with people you really enjoy, you experience the vast range of body positions that your body performs almost unconsciously. Another exercise is to place your awareness into the centre of your body, about an inch below the navel: in the place that the Japanese call the *hara* (or the Manipuraka chakra). Breathe deeply into this centre, let your shoulders drop, and become more mindful of this centre. Notice if you experience a shift in your perceptions, perhaps a greater peripheral vision, a greater freedom of movement, or a greater receptivity to others in your environment. With this shift in body posture, not only is your musculo-skeletal structure substantially changed, but also your perceptual and nervous systems.

The Kinesthetic Body. The kinesthetic body is the body of the muscular imagination. Each of us has a representation of our body registered in the cells of our brain. This neurological representation of the body can be extended and refined through bringing the subtle use of our body to conscious awareness. For example, try right now to imagine, as vividly as you can, how you would go about standing up. Now stand up. Did you do it the way that you thought? Repeat this process until your image of how you stand up coincides with your actual physical motions. When your kinesthetic sense is married to imagery and verbal suggestion, it allows healing and coordination in the body to take place.

Awakening the Senses. Often as adults we consider sensory knowing and delight to be something we have grown beyond, that a wonder and freshness to life is the response of the child. Our senses are indeed our doors and windows on this world, and they can be a key to the unlocking of meaning and wellspring of creativity. It is time to awaken and celebrate the senses and allow our perceptions to create new possibilities.

As it has been stated in the Upanishads: "Abundance is scooped from abundance, and yet abundance remains."

This Issue

The symbol for this issue of the Image Journal comes to us by way of the ancient Mayan civilization of what is today Mexico and Guatemala. It is called the *Hunab Ku*, translated as "One Giver of Movement and Measure". It is a symbol of the principle of intelligent energy that pervades the entire universe, animate or inanimate. Movement corresponds to

energy, the principle of life and all-pervading consciousness immanent in all phenomena. Measure refers to the principle of rhythm, periodicity and form accounting for the different limiting qualities which energy assumes through its different transformations.

New Body Paradigm is an excerpt from Deepak Chopra's book, *Ageless Body, Timeless Mind*, in which he takes us on the journey of the process of change. In his first chapter, Dr. Chopra takes ayurvedic principles and frames a list of ten new paradigms needed today.

Physicist, Dr. Moshe Feldenkrais, a pioneer in mind/body medicine, is the inspiration for the next article, *Relaxercise*. The article is from a book of the same name (1990) by David Zemach-Bersin, Kaethe Zemach-Bersin, and Mark Reese, all students of Dr. Feldenkrais for many years.

Marguerite Theophil, Ph.D., of Bombay has been a student of Tai Chi Chuan for some years. In the article, *Tai Chi, A 'Soft' Art*, she writes about the "Lead-In" practices and background of this ancient form of body/mind integration through movement.

From the New York Times Magazine (1991), an article called *Hearts and Minds* by Roberto Suro, bureau chief, highlights the work of Dean Ornish, M.D., and his experimental study for reversing heart disease. The results of this study became the basis for the book, *Dr. Dean Ornish's Program for Reversing Heart Disease* (Random House, 1990).

Body/Kinesthetic Intelligence, explores through simple exercises many ways to work with the body to experience kinesthetic intelligence. David Lazear is author of *Seven Ways of Knowing: Teaching for Multiple Intelligences*, 2nd Edition, (Skylight Publishing, Palatine, Illinois, 1991).

Angeles Arrien, anthropologist, author and professor, explores meditation postures from the question: "what do they reveal or access for the individual?" in *Meditation: Four Portals To The Inner Life*.

Finally, an article from Reno Taini, Ph.D., developer of the "Ropes" Course for management skills development as well as full-time instructor of 'at-risk' high school students south of San Francisco, California. Reno Taini, 1982 California Teacher of the Year, talks about the wisdom of *Experiential Learning*.

Although these articles are just a few of the many breakthroughs in mind/body/spirit connections, we hope this will stir your imagination as well as your daily practices.

Judy Gilles
Editor

THE NEW BODY PARADIGM - Deepak Chopra

I would like you to join me on a journey of discovery. We will explore a place where the rules of everyday existence do not apply. These rules explicitly state that to grow old, become frail, and die is the ultimate destiny of all. And so it has been for century after century. However, I want you to suspend your assumptions about what we call reality so that we can become pioneers in a land where youthful vigor, renewal, creativity, joy, fulfillment, and timelessness are the common experience of everyday life, where old age, senility, infirmity, and death do not exist and are not even entertained as a possibility.

If there is such a place, what is preventing us from going there? It is not some dark continental landmass or dangerous uncharted sea. It is our conditioning, our current collective worldview that we were taught by our parents, teachers, and society. This way of seeing things - the old paradigm - has aptly been called "the hypnosis of social conditioning," an induced fiction in which we have collectively agreed to participate.

Your body is aging beyond your control because it has been programmed to live out the rules of that collective conditioning. If there is anything natural and inevitable about the aging process, it cannot be known until the chains of our old beliefs are broken. In order to create the experience of ageless body and timeless mind, which is the promise of this book, you must discard ten assumptions about who you are and what the true nature of the mind and body is. These assumptions form the bedrock of our shared worldview. They are:

1. There is an objective world independent of the observer, and our bodies are an aspect of this objective world.
2. The body is composed of clumps of matter separated from one another in time and space.
3. Mind and body are separate and independent from each other.
4. Materialism is primary, consciousness is secondary. In other words, we are physical machines that have learned to think.
5. Human awareness can be completely explained as the product of biochemistry.
6. As individuals, we are disconnected, self-contained entities.
7. Our perception of the world is automatic and gives us an accurate picture of how things really are.
8. Time exists as an absolute, and we are captives of that absolute. No one escapes the ravages of time.
9. Our true nature is totally defined by the body, ego, and personality. We are wisps of memories and desires enclosed in packages of flesh and bones.
10. Suffering is necessary - it is part of reality.

We are inevitable victims of sickness, aging, and death.

These assumptions reach far beyond aging to define a world of separation, decay and death. Time is seen as a prison that no one escapes; our bodies are biochemical machines that, like all machines, must run down. "At a certain age," Lewis Thomas once affirmed, "it is in our nature to wear out, to come unhinged, and to die, and that is that." This position, the hard line of materialistic science, overlooks much about human nature. We are the only creatures on earth who can change our biology by what we think and feel. We possess the only nervous system that is aware of the phenomenon of aging. Old lions and tigers do not realize what is happening to them - but we do. And because we are aware, our mental state influences what we are aware of.

It would be impossible to isolate a single thought or feeling, a single belief or assumption, that doesn't have some effect on aging, either directly or indirectly. Our cells are constantly eavesdropping on our thoughts and being changed by them. A bout of depression can wreak havoc with the immune system; falling in love can boost it. Despair and hopelessness raise the risk of heart attacks and cancer, thereby shortening life. Joy and fulfillment keep us healthy and extend life. This means that the line between biology and psychology can't really be drawn with any certainty. A remembered stress, which is only a wisp of thought, releases the same flood of destructive hormones as the stress itself.

Because the mind influences every cell in the body, human aging is fluid and changeable; it can speed up, slow down, stop for a time, and even reverse itself. Hundreds of research findings from the last three decades have verified that aging is much more dependent on the individual than was ever dreamed of in the past.

However, the most significant breakthrough is not contained in isolated findings but in a completely new worldview. The ten assumptions of the old paradigm do not accurately describe our reality. They are inventions of the human mind that we have turned into rules. To challenge aging at its core, this entire worldview must be challenged first, for nothing holds more power over the body than beliefs of the mind.

Each assumption of the old paradigm can be replaced with a more complete and expanded version of the truth. These new assumptions are also just ideas created by the human mind, but they allow us much more freedom and power. They give us the ability to rewrite the program of aging that now directs our cells.

The Ten New Assumptions

1. The physical world, including our bodies, is a response of the observer. We create our bodies as we create the experience of our world.

2. In their essential state, our bodies are composed of energy and information, not solid matter. This energy and information is an outcropping of infinite fields of energy and information spanning the universe.

3. The mind and body are inseparably one. The unity that is "me" separates into two streams of experience. I experience the subjective stream as thoughts, feelings, and desires. I experience the objective stream as my body. At a deeper level, however, the two streams meet at a single creative source. It is from this source that we are meant to live.

4. The biochemistry of the body is a product of awareness. Beliefs, thoughts, and emotions create the chemical reactions that uphold life in every cell. An aging cell is the end product of awareness that has forgotten how to remain new.

5. Perception appears to be automatic, but in fact it is a learned phenomenon. The world you live in, including the experience of your body, is completely dictated by how you learned to perceive it. If you change your perception, you change the experience of your body and your world.

6. Impulses of intelligence create your body in new forms every second. What you are is the sum total of these impulses, and by changing their patterns, you will change.

7. Although each person seems separate and independent, all of us are connected to patterns of intelligence that govern the whole cosmos. Our bodies are part of a universal body, our minds an aspect of a universal mind.

8. Time does not exist as an absolute, but only eternity. Time is quantified eternity, timelessness chopped up into bits and pieces (seconds, hours, days, years) by us. What we call linear time is a reflection of how we perceive change. If we could perceive the changeless, time would cease to exist as we know it. We can learn to start metabolizing non-change, eternity, the absolute. By doing that, we will be ready to create the physiology of immortality.

9. Each of us inhabits a reality lying beyond all change. Deep inside us, unknown to the five senses, is an inner-most core of being, a field of non-change that creates personality, ego, and body. This being is our essential state - it is who we really are.

10. We are not victims of aging, sickness, and death. These are part of the scenery, not the seer, who is immune to any form of change. This seer is the spirit, the expression of eternal being.

These are vast assumptions, the makings of a new reality, yet all are grounded in the discoveries of quantum physics made almost a hundred years ago. The seeds of this new paradigm were planted by Einstein, Bohr, Heisenberg, and the other pioneers of quantum physics, who realized that the accepted way of viewing the physical world was false. Although things "out there" appear to be real, there is no proof of reality apart from the observer. No two people share exactly the same universe. Every worldview creates its own world.

I want to convince you that you are much more than your limited body, ego, and personality. The rules of cause and effect as you accept them have squeezed you into the volume of a body and the span of a lifetime. In reality, the field of human life is open and unbounded. At its deepest level, your body is ageless, your mind timeless. Once you identify with that reality, which is consistent with the quantum worldview, aging will fundamentally change.

Ending the Tyranny of the Senses

Why do we accept anything as real? Because we can see and touch it. Everyone has a prejudice in favor of things that are reassuringly three-dimensional, as reported to us by our five senses. Sight, hearing, touch, taste, and smell serve to reinforce the same message: things are what they seem. According to this reality, the Earth is flat, the ground beneath your feet is stationary, the sun rises in the east and sets in the west, all because it seems that way to the senses. As long as the five senses were accepted without question, such facts were immutable.

Einstein realized that time and space are also products of our five senses; we see and touch things that occupy three dimensions, and we experience events as happening in sequential order. Yet Einstein and his colleagues were able to remove this mask of appearances. They reassembled time and space into a new geometry that had no beginning or end, no edges, no solidity. Every solid particle in the universe turned out to be a ghostly bundle of energy vibrating in an immense void.

The old space-time model was smashed, replaced by a timeless, flowing field of constant transformation. This quantum field isn't separate from us - it is us. Where Nature goes to create stars, galaxies, quarks, and leptons, you and I go to create ourselves. The great advantage of this new worldview is that it is so immensely creative - the human body, like everything else in the cosmos, is constantly being made anew every second. Although your senses report that you inhabit a solid body in time and space, this is only the most superfi-

cial layer of reality. Your body is something far more miraculous - a flowing organism empowered by millions of years of intelligence. This intelligence is dedicated to overseeing the constant change that takes place inside you. Every cell is a miniature terminal connected to the cosmic computer.

From this perspective, it hardly seems possible that human beings could age at all. Weak and helpless as a newborn baby appears, it is superbly defended against time's ravages. If a baby could preserve its nearly invulnerable immune status, we would all live at least two hundred years, according to physiologists' estimates. If a baby could preserve its glistening smooth arteries, as supple as silk, cholesterol would not find anywhere to lodge, and heart disease would be unknown. Each of a newborn's 50 trillion cells is limpid as a raindrop, without a trace of toxic debris; such cells have no reason to age, because nothing inside them has begun to disrupt their perfect functioning. A baby's cells are not really new, however - the atoms in them have been circulating through the cosmos for billions of years. But the baby is made new by an invisible intelligence that has come together to shape a unique life-form. A timeless field has invented a new dance step, the pulsating rhythms of a newborn's body.

Aging is a mask for the loss of this intelligence.

Quantum physics tells us that there is no end to the cosmic dance - the universal field of energy and information never stops transforming itself, becoming new at every second. Our bodies obey this same creative impulse. An estimated 6 trillion reactions are taking place in each cell every second. If this stream of transformation ever stopped, your cells would fall into disorder, which is synonymous with aging.

Day-old bread goes stale because it just sits there, prey to humidity, fungus, oxidation, and various destructive chemical processes. A chalk cliff crumbles over time because wind and rain beat it down, and it has no power to rebuild itself. Our bodies also undergo the process of oxidation and are attacked by fungi and various germs; they are exposed to the same wind and rain. But unlike a loaf of bread or a chalk cliff, we can renew ourselves. Our bones don't just store calcium the way chalk does - they circulate it. Fresh atoms of calcium constantly enter our bones and leave them again to become part of blood, skin, or other cells as the body's needs demand it.

In order to stay alive, your body must live on the wings of change. At this moment you are exhaling atoms of hydrogen, oxygen, carbon, and nitrogen that just an instant before were locked up in solid matter; your stomach, liver, heart, lungs, and brain are vanishing into thin air, being replaced as quickly and endlessly as they are being broken down. The

skin replaces itself once a month, the stomach lining every five days, the liver every six weeks, and the skeleton every three months. To the naked eye, these organs look the same from moment to moment, but they are always in flux. By the end of this year, 98 percent of the atoms in your body will have been exchanged for new ones.

A huge proportion of this endless change works to your benefit. Only one enzyme out of millions reacts with an amino acid less than perfectly; the rarest neuron among billions misfires; on a strand of DNA coded with billions of pieces of genetic information, just one might fail to repair itself correctly when damage occurs. These rare mistakes are imperceptible, and you would think that they could not count for much. The human body is like a great Shakespearean actor who can play Hamlet a thousand times and stumble over just one syllable. But the invisible cracks in the body's perfection do count. The precision of our cells falters by slow degrees. The ever-new becomes slightly less new. And we age.

Beginning at age 30 and moving at the snail's pace of 1 percent per year, the average human body starts to come unhinged: wrinkles appear, the skin loses its tone and freshness, muscles start to sag. Instead of indicating three times more muscle than fat, the ratio starts to become equal, eyesight and hearing taper off, bones thin and become brittle. Stamina and endurance steadily decline, making it harder to perform as much work as before. Blood pressure rises, and many biochemicals shift away from their optimal levels; the most worrisome to doctors is cholesterol, which gradually rises over the years, marking the insidious progress of heart disease, which kills more people than any other affliction. On other fronts, cellular mutations begin to run out of control, creating malignant tumors that strike one person in three, mostly after age 65.

Over time, these various "age changes," as gerontologists call them, exert massive influence. They are the thousand tiny waves that bring in the tide of old age. **But at any given moment, aging accounts for only 1 percent per year of the total change taking place inside your body. In other words, 99 percent of the energy and intelligence that you are composed of is untouched by the aging process. In terms of the body as process, eliminating this 1 percent of dysfunction would wipe out aging.** But how do we get at this 1 percent? To answer that, we must find the control switch that manipulates the body's inner intelligence.

The new reality ushered in by quantum physics made it possible for the first time to manipulate the invisible intelligence that underlies the visible world. Einstein taught us that the physical body, like all material objects, is an illusion, and trying to manipu-

late it can be like grasping the shadow and missing the substance. The unseen world is the real world, and when we are willing to explore the unseen levels of our bodies, we can tap in to the immense creative power that lies at our source.

Not Older, Better

In 1958, a unique project began in Baltimore, Maryland, where eight hundred men and women between the ages of 20 and 103 volunteered to be examined as they aged. Each returned every year or two to go through an extensive battery of tests. The Baltimore Longitudinal Study of Aging, as it is officially known, grew to be the most famous of its kind. Its basic purpose was to determine how different bodily organs change over time. Hundreds of separate findings have emerged, and in general they fully support the optimism of the new old age.

Some key findings:

- As people age, their physical status varies widely from individual to individual, and by the time they reach 80 and 90, the differences have grown to be tremendous.
- While physical performance always declines over time as measured in a group, this does not always hold true for each person. Some people manage to retain lung capacity while everyone around them is losing it; others actually improve in kidney function or the amount of blood their hearts pump with each stroke. In most of these cases, the person kept up the use of the organ in question; "use it or lose it" was the key.
- Mental function is also maintained with use. For instance, someone who earns his living solving problems tends to retain that ability as he ages, even though that function declines for the group as a whole.
- The most complex organs, such as muscles, are the first to diminish. Losing muscle tissue is the main reason why people are unable to perform as much work as they age.
- Being moderately overweight in middle age apparently doesn't shorten one's life span (this depends, however, on avoiding the harmful side effects of being overweight, such as diabetes, hypertension, and congestive heart failure).
- Remaining sexually active throughout one's early and middle years gives one the best chance of remaining active into old age. Again there was tremendous variance from person to person. Married men between ages 60 and 80 might have sex as little as three times a year or as much as once a week or more. Most subjects believed that regular sexual activity, however, was good for their health.
- When asked to perform light to moderate exercise, men in their sixties were as efficient as men

in their twenties, but the old men had to use more of their total physical capacity. (The Tufts researchers found that older bodies benefit just as much from exercise as do younger ones; the gain in muscle mass from twelve weeks of weight-lifting was the same for 60-year-olds as for much younger subjects.)

- Old people metabolize alcohol as well as when they were young, but its effects get stronger. After taking a drink, an older person will show poorer reaction time, memory, and decision-making than a younger person.
- High levels of cholesterol do not keep rising with age but peak at about 55 (somewhat earlier for men and later for women).
- Although sugar tolerance declines with age, this leads to type II diabetes only in some people; others do not acquire the disease despite the change in their body's ability to use glucose in the bloodstream.

This represents only a fraction of what the Baltimore researchers discovered, but it is enough to confirm one of the main points I started out with: Everyone grows more unique with age, and that uniqueness includes the possibility for improvement on any front. Of 650 men, only 12 actually managed to improve their kidney function, while the vast majority suffered decline in function or remained the same, but that small handful is enough to give us a glimpse of untapped possibilities.

The new paradigm tells us that we are constantly making and unmaking our bodies at the quantum level, which means that we are constantly unfolding hidden potential. Some of this potential is negative, some positive. The field takes a neutral attitude; what we wish and expect for ourselves governs the response we get. If we consider how to improve physical and mental function every day for the rest of our lives, three values emerge that must be part of everyone's intention:

1. longevity itself, since life is a primary good
2. creative experience, which keeps life interesting and makes us want more of it
3. wisdom, the collective reward of long life.

It's impossible to set limits on what can be achieved in each area. Creativity and wisdom inspired Picasso, Shaw, Michelangelo, Tolstoy, and other long-lived geniuses to the day they died. Verdi wrote one of his greatest operas, *Falstaff*, at the age of 80, and the German naturalist Alexander von Humboldt completed his greatest work, *Cosmos*, at 89. There is immense beauty and dignity in these autumnal achievements; the dome of St. Peter's seems even more masterful for the fact that Michelangelo designed it in his ninth decade.

Psychologists who study creativity say that artists and writers often can produce more new ideas

in their sixties or seventies than in their twenties. One interesting variable is that the later you take up any creative pursuit, the more likely you are to pursue it into old age. Eliot Porter, one of America's premier landscape photographers, did not publish his first picture until he was past 50.

These latent potentials are closed off to the vast majority of people, who barely have skills to fill sixty-five years of existence. Therefore, it is extremely important to begin to develop your skills consciously, breaking free of social expectation and setting yourself the goal of becoming a master. **The underlying reason why old people feel marginal in our society, cut off from the mainstream of activity and social value, is that they themselves do not have a positive ideal of the very stage of life they find themselves in.** To help you carve out your own ideal life, I have listed ten keys to active mastery. They summarize much of what we have learned so far about aging and awareness. They are also meant to be practical ideals, ones you can aspire to in action every day.

TEN KEYS TO ACTIVE MASTERY

1. Listen to your body's wisdom, which expresses itself through signals of comfort and discomfort. When choosing a certain behavior, ask your body, "How do you feel about this?" If your body sends a signal of physical or emotional distress, watch out - if a signal of comfort and eagerness, proceed.
2. Live in the present, for it is the only moment you have. Keep your attention on what is here and now; look for the fullness in every moment. Accept what comes to you totally and completely so that you can appreciate it, learn from it, and then let it go. The present is as it should be. It reflects infinite laws of Nature that have brought you this exact thought, this exact physical response. This moment is as it is because the universe is as it is. Don't struggle against the infinite scheme of things; instead, be at one with it.
3. Take time to be silent, to meditate, to quiet the internal dialogue. In moments of silence, realize that you are recontacting your source of pure awareness. Pay attention to your inner life so that you can be guided by intuition rather than externally imposed interpretations of what is or isn't good for you.
4. Relinquish your need for external approval. You alone are the judge of your worth, and your goal is to discover infinite worth in yourself, no matter what anyone else thinks. There is great freedom in this realization.
5. When you find yourself reacting with anger or opposition to any person or circumstance, realize that you are only struggling with yourself. Putting up resistance is the response of defenses created by old hurts. When you relinquish this anger, you will be healing yourself and cooperating with the flow of the universe.
6. Know that the world "out there" reflects your reality "in here." The people you react to most strongly, whether with love or hate, are projections of your inner world. What you most hate is what you most deny in yourself. What you most love is what you most wish for in yourself. Use the mirror of relationships to guide your evolution. The goal is total self-knowledge. When you achieve that, what you most want will automatically be there, and what you most dislike will disappear.
7. Shed the burden of judgment - you will feel much lighter. Judgment imposes right and wrong on situations that just are. Everything can be understood and forgiven, but when you judge, you cut off understanding and shut down the process of learning to love. In judging others, you reflect your lack of self-acceptance. Remember that every person you forgive adds to your self-love.
8. Don't contaminate your body with toxins, either through food, drink, or toxic emotions. **Your body is more than a life-support system. It is the vehicle that will carry you on the journey of your evolution.** The health of every cell contributes to your state of well-being, because every cell is a point of awareness within the field of awareness that is you.
9. Replace fear-motivated behavior with love-motivated behavior. Fear is the product of memory, which dwells in the past. Remembering what hurt us before, we direct our energies toward making certain that an old hurt will not repeat itself. But trying to impose the past on the present will never wipe out the threat of being hurt. That happens only when you find the security of your own being, which is love. Motivated by the truth inside you, you can face any threat because your inner strength is invulnerable to fear.
10. Understand that the physical world is just a mirror of a deeper intelligence. Intelligence is the invisible organizer of all matter and energy, and since a portion of this intelligence resides in you, you share in the organizing power of the cosmos. Because you are inseparably linked to everything, you cannot afford to foul the planet's air and water. But at a deeper level, you cannot afford to live with a toxic mind, because every thought makes an impression on the whole field of intelligence. Living in balance and purity is the highest good for you and the Earth.

Life is a creative enterprise. The eminent psychiatrist Erik Erikson laments, "Our civilization does not really harbor a concept of the whole of life." The new paradigm provides us with such a concept, knitting body, mind, and spirit into a unity.

RELAXERCISE - David Zemach-Bersin

In 1942, Dr. Moshe Feldenkrais, a brilliant and respected physicist working in London, faced one of the most critical challenges of his lifetime. Because he had suffered a series of sports-related knee injuries, he was now painfully crippled. He was confronted with the possibility that he might have to spend the rest of his life using either crutches or a wheelchair. The medical specialists had given him a disheartening prognosis. In their estimation, there was a 50 percent chance that surgery could repair his knees. But they warned that if the surgery failed, it could drastically reduce his chances of ever being able to walk again. He had to decide: Should he undergo the surgery - or was the risk too great? Might there be other solutions?

Feldenkrais approached his unenviable dilemma with characteristic determination and a special understanding of both the human body and contemporary science. He had been the first European to receive a black belt in the Japanese martial art of *judo* and had written five definitive books on its technique and theory. As a physicist, Feldenkrais was accustomed to solving problems that had tested the brightest minds of his generation. For many years he had been a close associate of French Nobel laureate physicist Frederic Joliet-Curie. Together they had conducted some of the very first experiments in atomic research. Could Feldenkrais apply his knowledge of physics and the human body to finding a way to regain the use of his legs?

Feldenkrais chose **not** to undergo the proposed surgery. Instead, he began to study neurology, anatomy, biomechanics, and human movement development. He knew that in order to walk again, he would have to find a way to create new neurological connections between his nervous system and his muscles. After two years of research and experimentation, Feldenkrais emerged victorious. He succeeded in completely restoring his ability to walk. Feldenkrais had developed a way to improve his body by *activating the natural power of his brain and nervous system*.

Inspired by his personal success, Feldenkrais continued to explore the profound link between the brain and the body, and developed hundreds of unique exercises designed to access the movement learning centers of the brain. Feldenkrais tested his new ideas with his friends and colleagues. He treated their aches and pains, muscle and joint problems, and even debilitating neurological conditions. One after another, their symptoms disappeared. It was obvious that Feldenkrais had discovered an extraordinary new approach to physical improvement.

In 1949, Feldenkrais published his theories about the relationship between human movement and the nervous system in *Body and Mature Behavior*, a

book still widely read. The following year, he became a professor of physics at the famed Weismann Institute in Israel, while continuing to apply and refine his unique neuromuscular exercises. In 1954, there was such a great demand for his new knowledge and skill that he decided to leave physics and dedicate himself to helping others improve their health.

Soon people from all over Europe were traveling to Feldenkrais's popular clinic and classes in Tel-Aviv. His classes were attended not only by people suffering from physical problems but also by musicians, athletes, dancers, and thousands of other people from every walk of life. In 1972, Feldenkrais was invited to the United States to present his work at health institutions and universities. The response was overwhelming, and for the next decade, he spent part of each year in the United States teaching and lecturing.

Before he died in 1984, at the age of eighty, Feldenkrais trained a small group of practitioners to continue his work and make it available to a wider public. Since his death, over 1,000 new practitioners have been trained and accredited. Two authors of the book *Relaxercise: The Easy New Way to Health and Fitness*, David Zemach-Bersin and Mark Reese, were fortunate to be among the first Americans to study with Dr. Feldenkrais. They spent over ten years studying and working closely with him in both the United States and Europe. In 1983, they joined forces and began to collaborate on the development of **Relaxercise**, an exercise system designed to make the benefits of Feldenkrais's remarkable neuromuscular exercises available to everyone who would like to feel better.

How Relaxercise Works

Scientific discoveries have demonstrated that your brain and nervous system are the command and control center for your entire body. Relaxercise works to revitalize and improve your body by enhancing the communication between your brain and the rest of your body. By using the powerful connection between your brain and body, Relaxercise can bring about extraordinary physical changes and improvements with astounding efficiency and speed.

When we were small children, we learned how to sit up, roll over, crawl, stand, walk, and run. These accomplishments were achieved through an important natural process of trial and error. To learn how to walk, we first had to learn to stand up, maintain our balance, and take a single step. Only after falling down and getting up, over and over again, were we finally able to take many steps, one after another, without losing our balance and falling down.

Scientists call this process sensory motor learning. "Sensory motor," because it involves the use of our senses - sight, hearing, balance, and touch - in con-

junction with movement. And "learning," because as a result, we learn how to do something new.

Sensory motor learning is how all physical learning takes place. It occurs through an information feedback process between your senses, muscles, and brain. As your body moves, your senses of touch, balance, and sight send your brain information about your body's position and muscular activity. Your brain responds by modifying the outgoing messages to your muscles. As the information is fed back and forth, the counterproductive and unnecessary muscular effort in your body is detected and "weeded out." Bit by bit, your movement becomes more refined and efficient. Information is exchanged between the brain and the senses until a successful, coordinated pattern of action is formed. Miraculously, the entire process takes place with virtually no conscious effort.

Remember when you learned to ride a bicycle? In the beginning, simply getting on the bike was a challenge. Although you held on very tight and made an enormous effort to keep your balance, you fell down many times. But with trial and error, you learned how to balance even while pedaling fast and turning corners. As your brain gradually reduced more and more of your body's unnecessary muscular effort, successful neuromuscular patterns were formed, and your bike-riding skills improved. Ultimately, you could keep your balance, pedal, watch the road, daydream, whistle a tune, and even take your hands off the handle, all at the same time.

Relaxercise is the first exercise system to improve your body by stimulating and using your brain's natural process of sensory motor learning.

The Secret of Relaxercise

In order to take advantage of your body's extraordinary ability to improve itself through sensory motor learning, you must give your brain an opportunity to detect and reduce the unnecessary, counterproductive muscular effort in your body. Research in neurophysiology has shown that when we exert a lot of *muscular effort*, it is impossible for our brain to make the sensory distinctions needed to improve our neuromuscular organization. This is why conventional exercise, with its reliance on muscular effort, force, and speed, actually restricts your brain's ability to work on your body's behalf. When we use *minimal* muscular effort, our brain is free to make important sensory distinctions.

For example: If you hold a heavy object, you have to exert a considerable amount of muscular effort. If a fly lands on top of the heavy object as you are holding it, you cannot feel the very slight increase in weight. This is because the muscular effort in your body is making it impossible for your brain to

perceive the small change or difference in weight. But if you hold something that is very light, like a feather, you do not need to exert a lot of muscular effort. If a fly lands on the feather, you can easily feel the increase in weight because your brain is free to sense even the slightest difference or change.

Relaxercise exercises apply the powerful neurological rule: less muscular effort produces more sensory motor learning, and physical improvement. Relaxercise exercises involve slow, easy movements that activate your brain's movement centers and generate a flow of valuable information between your brain and your muscles. Automatically, as if by magic, tension, strain, fatigue, and discomfort will disappear as your neuro-muscular system reprograms itself for better health.

You should never experience discomfort or pain while doing a Relaxercise exercise. Pain indicates physical irritation. If you begin to experience any physical discomfort at all, respond by making each movement extra small, extra slight, and extra easy - or just **imagine** doing the movements without actually moving.

Discomfort **after** an exercise may indicate that you used too much muscular effort while doing the movements. The next time, don't do too much. If you stay well within the limits of your body's natural comfort zone, each exercise will be an enjoyable and beneficial experience. The exercises are suitable for everyone, and may be used at any time, including during pregnancy and while recovering from an injury.

Occasionally, pain, injury, or physical limitation may interfere with your ability to do an exercise. In almost all cases, you can still benefit from the exercise by making each movement extremely small and slow. The exercises are ideal for helping your body to heal and repair itself. As you do an exercise, make each movement very slight. Make sure that each movement feels completely comfortable and easy. You can also experiment with doing the movements in your imagination. This is a technique called visualization, and it can be very useful.

Research has shown that your brain's electrical activity is essentially the same when you imagine doing a movement as when you physically do it. When you imagine or **visualize** moving, your brain sends messages to your muscles identical to the ones it sends when you actually move your body. The only difference is that when you visualize moving, the messages are not intense enough to make your muscles fully contract. Visualization is a powerful tool and can be as effective and beneficial as physically doing the movements. To visualize the movements of an exercise, just close your eyes and imagine doing the movements - **without** moving your body.

TAI CHI, A 'SOFT' ART - Marguerite Theophil

Tai chi, an ancient martial art based upon Taoist philosophy, probably developed in China during the Sung dynasty. It was initially taught and practised only in northern China. The Japanese invasion in the twentieth century stimulated its spread to other parts of the country while the communist takeover of the nation was largely responsible for its dissemination to Taiwan, Hong Kong and the countries of Southeast Asia. From these overseas centres the art was propagated even further.

Paradoxically, despite its popularity, there exists a good deal of misconception about tai chi. Some view it as a mild exercise. Yet those who practise other forms of martial art recognise it as a martial art that takes a long time to learn and even longer to perfect. Many will attest to its effectiveness, but just what makes it effective as a martial art no one seems to know.

This is not surprising. Relatively few people have mastered tai chi; fewer are willing to pass on knowledge of it. Most of those who do often describe only the basic tenets on which it is based, and even those in very vague and general terms. This is due, in part, to the Chinese (or perhaps Asian) tradition of reserving knowledge of the more intricate aspects of a martial art to those of proven loyalty and integrity. There are other factors that ensure a deep grounding of the art is passed on effectively to only a carefully selected handful. Few exponents, for example, would have sufficient motivation and self-discipline to ignore society's ever-persuasive attractions to undertake a prolonged period of painful practice and relative isolation essential for the mastery of the art. Respectability and a lucrative livelihood, the rewards a master of martial arts could look forward to in the past, are not such certain rewards in today's society.

What then is tai chi? How is it practised today? How does it differ from other martial art systems?

Its practice consists essentially of a series of continuous, slow, smooth and graceful moves executed with suppleness and in a relaxed manner. This practice, together with the maintenance of a straight and upright posture, form the basis of the art. These characteristics have led some people to describe tai chi as a 'soft' or 'internal' art. They recognise that its practice is diametrically opposed to the practice of the 'hard' or 'external' martial art systems exemplified by some of those taught in the Shaolin school. The 'external' or 'hard' schools emphasize forceful, rapid, staccato moves executed with strength and power. The more power, speed and accuracy the practitioner is able to concentrate in his or her move, the better the person is judged to have executed it.

Is it conceivable that the practitioner of tai chi, a 'soft' art, would be able to withstand the devastating

power of exponents of the 'hard' school? The fact is that a tai chi exponent is quite strong and very supple. His strength is concentrated in the legs and this enables him to relax so as to leave his torso yielding and apparently 'soft'. Any force directed to the body would then be dissipated as there would be no solid surface to absorb its energy. The aggressor will find that he is unable to focus his attack and vent his power on a tai chi exponent, who escapes injury. Leg strength also enables the tai chi exponent to react like a coiled spring - recoiling away from a strong force and then springing back when that force is removed. The stronger the attacking force, the tighter the spring and the stronger the counter-attack.

How does the tai chi exponent develop such strength and suppleness? He does so through meticulous, consistent repetition of a predetermined set of moves of which there are forty-four. The moves are made with the body relaxed and, when it is upright, completely straight. Relaxation promotes the transfer of body weight to the legs. The more you can relax, the greater the weight that sinks down to your legs. A straight posture permits the flow of *ji* (energy) and helps focus body weight onto a small area. A perfect combination of relaxation and a completely straight posture is difficult to attain as it frequently loads the leg muscles to an unbearable degree, causing pain - pain which often causes an exponent to either involuntarily tense up or to shift his position and lose the correct posture. This manoeuvre would lessen the load on the leg muscles and bring immediate relief, but it also reduces the value of the exercise to the practitioner. As in most endeavours, the benefit one derives in tai chi is directly proportional to the intensity of effort put in. It is relatively easy, therefore, to learn the moves of the tai chi exercise, but extremely difficult to master the art of tai chi. This is one of the main reasons why there are so few really good tai chi exponents today.

The majority of those who practise tai chi do so mainly for the benefits it gives as an exercise. Relatively few learn it only for its martial aspects. As an exercise, tai chi is suitable for people of all ages, particularly those on the wrong side of thirty. The very nature of the art stimulates blood circulation, loosens and limbers up joints and at the same time promotes mental relaxation.

It has been claimed that tai chi, when practised diligently, will help and even cure certain morbid conditions. Some have reported that the practice of tai chi can produce remissions for organic diseases like tuberculosis and diabetes mellitus, but do not offer any rational explanation as to how this is achieved. Although tai chi would undoubtedly promote health, the more extravagant claims of its therapeutic benefits should be viewed in their correct

perspective. These claims should be based upon carefully planned and executed studies and not solely upon the observation of isolated cases.

How would tai chi compare with other forms of exercise? One unique feature is that it promotes mental relaxation. In this it is like yoga and has been described as 'meditation in motion'. Tai chi exercises the cardio-pulmonary system, particularly when it is correctly practised. A half-hour tai chi workout would be equivalent to the exercise benefit derived from a three-hour game of golf. It is, however, a less intensive exercise than either squash or tennis.

One great advantage that tai chi has as an exercise is its convenience. Only ten minutes' exercise is all that is required for a practice session. It certainly beats rearranging schedules to fit in a round of golf or even a jogging session! What is more, tai chi can be practised in a relatively small area, with no special equipment or companion. Your office, bedroom, lounge, patio, garden - just about any open space 15 metres square can be used for the practice of tai chi. It can, therefore, be practised in your own home, at practically any time, with minimal expense and by yourself. Most important, you will always feel good, relaxed, refreshed and invigorated after a tai chi session.

Although you do not require any special equipment, you should always use a pair of flat-soled shoes during practice to avoid injury to your soles. A soft, loose, sweat-absorbing shirt and loose, baggy pants will be an asset as they permit free movement. Avoid using skin-tight pants and shirts during practice - these not only hamper blood circulation, they also cause some discomfort. For the same reasons, tight-fitting rings should be taken off before practice.

The beauty of practising tai chi is that, apart from getting considerable physical exercise, you are learning, quite by accident perhaps, an ancient martial art. Unconsciously you will imbibe its principles and when this occurs, you will inherit some of the values and qualities the Chinese prize highly - patience, perseverance, tolerance, discipline and confidence.

Body Work Through Tai Chi Chuan

Learning Tai Chi, a "soft" martial art form, has never been seen as simply the means to becoming proficient in a technique; rather, the body is considered a vehicle through which the deeper aspects of the culture were acquired, not theoretically but experientially.

Tai Chi "Form" consists of a series of moves that flow into each other that are carried out in a definite sequence. A different time and a different life-style made the teaching of Form somewhat easier in days gone by. Today our bodies - the way we tend to use

them - needs some kind of 'un-learning' of habitual modes in preparation for learning. This is why many teachers have created a series of 'Lead-In' practices that accustom the body to:

- i) the un-used to stance required;
- ii) the slowness and softness that is so different from most exercise systems we have learnt so far;
- iii) the state of being, or conscious awareness (as opposed to concentration) that needs to be held.

These will allow us to take to the form much more smoothly when we begin to learn it.

Each teacher designs a somewhat different set of Lead-In practices depending on the tradition to which s/he belongs: My training has been of the Yang school, and these practices have been learnt from several teachers.

In themselves, these practices have become part of the daily routine of many people, even if they do not intend to go on to learn the Form. Sometimes they are added to an existing routine of quite a different kind of exercise, particularly when this is felt to provide a missing dimension to other disciplines. This is because Tai Chi is seen as an exercise that makes use of the entire organism: hands, shoulders, feet, legs, abdomen, hips, and palms, wrists, fingers, ankles, toes, sides of feet, even the eyes are all brought into play. Then too we experience in the body the stillness in motion, the holding of the paradox - hard/soft, tension/relaxation, stability/flexibility, the inward/the outward **AT THE SAME TIME**.

It is known that physical learning can and is the trigger for overall learning. In these practices I would like to keep drawing awareness to the applications for everyday learnings. Practices that involve a partner are included. There are also those that, through breathing and gesture, with conscious awareness, serve as a reminder of the 'Triad of Relationships' with self, with others, and the physical environment with and within which we interact.

Lieh Chan

This exercise prepares the mind/body for the session. Feet shoulder-width apart, toes pointed forward, knees slightly bent. Shoulders, arms relaxed, chin neither points to chest nor in the air. Breathing is regular, eyes 'soft' gently unfocused on spot on floor about three feet ahead of you. Awareness in your Tan Tien (spot about 3 inches below navel). Feeling feet connect you to earth, drawing in 'actualizing' energy; sky-hook connects top of head to 'heavens', drawing in 'potential' energy. Awareness of body as Field in which these energies are manifested for Illuminated Action.

Swinging

Side to side movement from hips; arms follow and do not lead. Imagine arms as ropes with heavy stone

at end. Go for LESS control. The focus is not speed. Awareness is in 'letting go' of need to control movement. Feet with soles flat on floor.

Zip Swing

Begin forward facing, arms outstretched. Swing body to left, pivoting on left heel as left toes point skyward; at the same time, right arm swings out. Back to forward-facing/arms stretched at sides position. Then swing body to right on right heel, right toes point up, while simultaneously left arm shoots out in front of you. Forward-facing again. This is done rhythmically, starting slow and picking up speed.

Expansive Breathing

The exhalation is ACTIVE (can be through mouth); inhalation follows naturally (always through nose). Begin with Lieh Chan stance. Interlace fingers at waist level, palms face upwards. Exhale, then inhale raising hands to shoulder level. Here, turn hands so palms face floor, and push down to waist level while exhaling. Let palms face floor while you raise arms (inhaling) right over head. Separate hands, and drawing a large circle with your arms, bring arms slowly down to your sides (exhaling).

Directional Breathing

Begin in Lieh Chan. Exhale. Inhaling, draw palms slowly to your shoulders; exhaling push out palms in front of you. Inhaling, draw palms again to your shoulders; exhaling push out above your head. Inhaling, draw palms to shoulders; exhaling, push out on either side. Inhaling, draw palms towards you; exhaling push downwards at your sides. Do this sequence in all 4 directions with awareness of Giving/Taking.

Differential

Begin in Lieh Chan. Awareness of weighted stability in lower half of body, of light flexibility in upper half. Exhale. Turn palms up slowly (inhaling). At shoulder level draw in, and turn palms down; one arm gently lowered down, at same time other raised over head (exhaling). Lowered arm is soft, relaxed; raised arm is taut. In the pause, inhale. Bring raised arm down, softening it as you exhale. Repeat with changing raised/lowered arms.

Arrow

Begin in Lieh Chan. Exhale, sinking into half-sitting posture, feet more widely apart than earlier practices; make sure back is straight, not leaning forward. Make light fists at groin level and inhaling, raise to just below neck. As you exhale, stretch out left arm to your left, the first two fingers forming a 'V', your eyes following the fingertips. As this is done the folded right arm is drawn back; be aware the out-

stretched arm is taut, the folded one is 'soft' AT THE SAME TIME. Now slowly bring back left hand, eyes following both hands in light fists, and lower to groin. Now repeat this extending the right hand.

Try to maintain the 'half-sitting' position throughout the practice.

Toner Sweep

Begin in Lieh Chan. Exhale, sinking to half-sitting, placing hands on thighs - thumbs pointing outward. Turn upper body to the right as you inhale, twisting at the waist. The head should also turn in the direction of the body.

Bending from the waist, sweep the body to the front/center as you exhale; and in a flowing move sweep up to your left, inhaling as you do so. Swing back and forth this way several times in a rhythmic flow, remembering to exhale as your body folds up or lowers, and inhale as it straightens up.

It is important to keep the back straight throughout the practice.

Interactive Practice: Push Hands and Sticking Hands

In the Tai Chi exercise of "push hands," two persons unite their chi, representing the union of heaven and earth. Touching lightly at the hands and wrists, the two move back and forth in circular motions. One of the two is the leader and initiates the first movement by pushing the wrist of the partner's hand away and then, maintaining the contact, pulling back with the palm; the partner follows. Each takes a turn as leader, setting the rhythm and pace of the motion.

The aim is to maintain an ever-so-soft contact with one another as they vary the speed and direction of their movements. As the leader makes changes, the partner must try not to lose contact with, or push against, the hands whether they accelerate or slow down.

In Sticking Hands, the leader places his/her dominant hand palm down and the follower puts their dominant hand on top of it. The leader then initiates random movements while the follower attempts to move in harmony. This is best accomplished if both stand with knees bent slightly to anticipate the movements.

In "push hands" and "sticking hands" we learn to move in harmony with whatever force approaches us. Losing contact with our partner's hand allows it to strike us. Pushing against the other's hand overextends us and we can be easily led off balance. The "push-hands" technique teaches one to ward off an oncoming attack and still maintain centering. Overreacting or underreacting can cause one to lose it. Problems tend to disrupt our equilibrium, but we must learn to deflect their force while keeping centered.

HEARTS AND MINDS - Roberto Suro

Dr. Dean Ornish prescribes a package of lifestyle changes to reverse heart disease. Bypassing the bypass, he has reduced arterial blockages in an experimental group of patients by putting them through a regimen that includes yoga, brisk walking, a low-fat vegetarian diet, and a ban on smoking.

Dr. Dean Ornish was embarrassed. His patients were in revolt. He was being ignored by people who, moments earlier, had said he deserved a Nobel Prize for saving their lives. They had all been his guinea pigs, some of them for as long as six years. First they had changed their diets. Then they had changed their lives. It was all because he had told them that only they could heal their hearts. Now, mellow from meditation and yoga, they just wanted to form a circle and hold hands, and he was telling them to go home.

As usual, the doctor and his research patients had met for one of their twice weekly sessions in a remodeled firehouse in the Marina district of San Francisco. But, on this night, visitors were present, and so the doctor was concerned about appearances. An Austrian doctor and his wife, two journalists, the publisher of a health newsletter, and a prominent Los Angeles cardiologist had all come to see Ornish in action.

A rebel who has challenged the medical establishment to change some fundamental practices, Ornish claims to have found a way to reverse heart disease, America's No. 1 killer, solely with a package of life-style changes. No need for cholesterol-lowering drugs or surgery.

When he first started researching causes of heart disease 15 years ago, he was merely a second-year medical student, and for a long time he could be dismissed as young, inexperienced, and foolishly idealistic. Scorned by traditional sources of research money, Ornish developed his program with aid from wealthy businessmen, mostly fellow Texans, intrigued by the idea that expensive health care could, for certain people, be replaced with something as simple as a program of dieting, exercise, and stress management.

Then, in 1989 he started publishing data showing that members of his firehouse gang, all of them seriously ill at one time, had reduced the blockages in their arteries overall. In 1990, his findings were published both in a best-selling book, Dr. Dean Ornish's Program for Reversing Heart Disease (Random House), which includes more than 150 vegetarian recipes, and in "The Lancet", the British medical journal that specializes in publishing small, provocative studies. Soon invitations to medical conferences began pouring in, and currently he is receiving \$450,000 in grants a year for further research from three mainstream organizations,

including the U.S. National Institute of Health (NIH).

Despite all these signs of respect from venerable institutions, Ornish, who refers to himself as a medical researcher and educator and maintains only a small private practice, remains an iconoclast. A rival researcher recently labeled him an evangelist. Even some supporters say his methods are radical. While the medical establishment may question Ornish's bottom-line claims, no one is saying he can be ignored anymore.

On this particular Tuesday night, the visitors had been invited to join the patients in their carefully structured treatment program, which is intended to reinforce their daily habits at home. They began with a brisk 45-minute walk along the water's edge as the sun slipped behind the Golden Gate Bridge. Dressed in sweat suits and fancy warm-ups, the mostly gray-haired coronary cases resembled members of a cruise-ship aerobics class more than participants in a scientific rebellion.

They then returned to the firehouse, which is part of the Fort Mason complex, a former military base. Eighteen of them altogether, including some spouses along for moral support, stretched out on the floor, the lights were turned down and a therapist with a voice as soft and steady as the lapping of the waves led them through a half-hour of yoga that segued into a period of meditation. By the end of an hour the soft voice was telling the patients to visualize their arteries dilating to allow blood to course through.

Next came a dinner prepared by the staff chef. Buffet tables were crowded with dishes like rice salad with currants, artichokes with nonfat yogurt dressing, lentil torte with cabbage leaves, and zucchini-stuffed tomatoes. Ornish's message is that switching from whiskey to chardonnay and from steak to sole is not nearly enough. He advocates that people with serious heart problems change their diets radically from animal to vegetable.

Exercised and relaxed, well-fed and glowing, the patients - from different backgrounds and professions - settled into folding chairs for their version of group therapy. An Episcopal priest, a construction subcontractor, and an antiques dealer talked about their progress. At the end, the doctor made a few announcements and affectionately bade them a good night.

That's when the revolt started. One man said in mock protest, "What about holding hands?" Looking across the room to where the visiting journalists and medical specialists sat watching, Ornish shook his head wearily and said, "No, no, not tonight." The patients started linking up anyway.

He relented when it became clear they would go on without him, and so he led them in their final rite.

Everyone sat in a ring, holding hands, eyes closed. Ornish, whose dark, curly hair surrounds a balding pate, spoke gently in a voice of prayerful sincerity, invoking the deep and powerful connections among them symbolized by their gesture of physical affection.

The next morning, sitting on the deck of his house in Sausalito, looking back across the bay at San Francisco, Ornish told me why he had not wanted outsiders to see that closing moment.

"It is important for the patients, but it is just the sort of thing that can be trivialized and satirized," he said. "If you are interested in stuff like meditation and vegetarian diets, people lump you together with cults and a lot of other approaches that are antithetical to the kind of research I am conducting."

About half a million Americans die each year from the effects of atherosclerosis, in which the arteries that carry blood to the heart are progressively clogged with fatty deposits called plaque. Cholesterol-lowering drugs, which are expensive and sometimes have troublesome side effects, can retard the disease, and four recently completed studies show that high doses of these drugs can cause arteries to reopen. At the moment, however, the only widely accepted technique that actually increases the flow of blood through existing arteries is angioplasty, in which a catheter with a balloon-like tip is threaded through the vessel, forcing it to open up. Otherwise, the standard recourse is bypass surgery, which circumvents blockages by splicing in veins taken from the leg.

Time and again Ornish reminds listeners on talk shows and at lectures that neither an angioplasty nor a bypass affects the progress of the disease. He repeatedly cites studies showing that in four to six months, a third of the arteries treated by angioplasty will begin to clog and that two-thirds of the bypass vein grafts will clog up again within ten years.

"Bypasses bypass the problem," is the sound bite Ornish uses to dismiss the 300,000 or so of those surgeries performed annually in the United States, and he holds no greater regard for the almost equal number of angioplasties.

After a pause to let the thought sink in, he continues in the gentle but insistent cadences favored by motivational speakers who portray their visions as self-evident: "I don't understand why asking people to eat a well-balanced vegetarian diet is considered drastic while it is medically conservative to cut people open or put them on powerful cholesterol-lowering drugs the rest of their lives."

For such brashness, Dean Ornish, 39 years old, has been called both a boy wonder and an *enfant terrible*. His contention that a small, experimental group of patients reduced arterial blockages under

his care is accepted as a clinical fact, but professionals raise many questions about the wideness of its applicability and ultimate scientific value.

Doubters point out that his sample is very small (the experimental group consisted of 22 people who underwent his program and 19 who were in a control group that received standard care from their own cardiologists). The skeptics wonder if his patients would have responded so well without the first-class yoga coaches, the catered meals, and the special attention Ornish lavishes on them. And, some of his supporters wonder whether other doctors could get the same results.

One of Ornish's early mentors, Dr. Antonio Gotto, chief of internal medicine at the Baylor College of Medicine in Houston, said: "There are charismatic doctors all over the world, and sometimes it is hard to separate the personality of a physician from his application. Maybe there is something like an 'Ornish Factor' here. Maybe others will not be as successful in getting people to change their behavior."

The Ornish plan for reversal of heart disease has four major disciplines:

- Patients practice stress management, which involves at least an hour a day of yoga, including meditation, imagery, and breathing exercises.
- Patients are given a very moderate regimen of light aerobic exercise, usually nothing more vigorous than half an hour a day of walking.
- Patients are asked to stop smoking.
- Patients adhere to an extremely low-fat vegetarian diet that permits no animal products except for egg whites and nonfat dairy products. (No fatty nuts or seeds, either.) Two ounces of alcohol a day are allowed.

In the average American's diet, from 40 to 50 percent of the calories come from fat. The American Heart Association calls for atherosclerosis patients to reduce fat intake to 30 percent of their calories. The Ornish reversal diet allows only ten percent, requiring not only a drastic change in the contents of meals but also in the way they are cooked. It also makes eating in restaurants very difficult. Some people find the diet taxing, because at first the food seems boring, and the preparation can be time-consuming.

Ornish was not the first to suggest that such a stringent diet could have major medical results. In the 1970s Nathan Pritikin popularized a near-vegetarian diet low in fat, cholesterol, and sodium. Indeed each element of Ornish's reversal program has been individually shown to help retard the progress of heart disease, and in various combinations they are used in many cardiac rehabilitation programs.

While most cardiologists advocate life-style

change for their patients, Ornish goes much further. While accepting that many will need surgery or drugs, he says that for some patients the combination of changes he proposes greatly enhances the body's ability to break down arterial plaque and increases the smooth flow of blood to the heart.

The evidence lies in data drawn from the chests of his firehouse crew, most of whom have been measured for more than four years against the control group. In the first year blockages were reduced in 82 percent in the Ornish group while they increased in the majority of those who received standard medical care. The frequency of angina, that pain in the chest that is a *memento mori* for the cardiac patient, was reduced by 91 percent for the experimental group while it increased 165 percent for the control group.

When Werner Hebenstreit, one of the most successful cases, began the Ornish program almost six years ago, his angina was so severe that even the exertion of taking a shower would cause pain. When I met Hebenstreit, who is now 77 years old, he was about to take his walk at the start of the Tuesday night program. He looked at me with evident satisfaction and said, "I am guessing you are about half my age, and I bet you can't keep up with me." He then bounded up a steep staircase, two steps at a time.

In 1990, when the final results of the firehouse experiment were available, Dr. Claude Lenfant, director of the National Heart, Lung and Blood Institute, part of the NIH, said: "I feel this is a tremendously important study in the control of heart disease. It's the very first study indicating regression of coronary heart disease without pharmaceutical intervention."

Although Ornish now enjoys greater respectability than ever, skepticism lingers. In some quarters it flourishes.

"He has always been convinced that he's right, and he wants to prove it so badly that you have to be concerned over whether his work will come up with any conclusions other than the ones he is supporting," said Dr. B. Greg Brown, a professor of medicine at the University of Washington. In a study in 1990, he found that combinations of two cholesterol-reducing drugs did bring about reversals in artery blockages.

Ornish insists that he has always wanted to be a mainstream researcher, but he also takes wry pride in being something of an iconoclast. "You know the old joke about how you can spot a pioneer?" he asks. "The pioneers are the ones with arrows in their backs, and I am a little defensive from all the arrows I've been hit with."

Dean Ornish was born and raised in Dallas, Texas, where he was an A student in public school.

His father, a dentist, saw an heir for his practice. But at Rice University in Houston, Dean was no longer the brightest kid. What happened next is a story he has told many times over. Worried that he was stupid and beset by a crisis of self-worth, Ornish contemplated suicide. A bout of mononucleosis kept him from doing it. Why does he still recall it so vividly 20 years later?

Ornish says, "I go back to it all the time because it was a transforming moment." And, he says, much of his medical approach has developed out of his experience of that moment. It was 1972, and like many of his generation, Ornish sought the enlightenment of the East. His guru was Swami Satchidananda, who personally taught him yoga and meditation. And Ornish made a discovery. "I realized," he recalls, "that the less I needed success, the less I felt stress about my ambitions, the more I succeeded." Later, when he began to work with heart patients, he began to suspect that there might be a connection between the causes of depression and heart disease.

He went on to graduate summa cum laude from the University of Texas at Austin and got into Baylor College of Medicine in Houston. There, in his third year, Ornish got a big break. Through an acquaintance he was introduced to Henry Groppe, an oil-business consultant with a long-standing interest in preventive medicine. A tall, gaunt Texan who wears rimless glasses, Groppe analyzes deals and works out market forecasts for a long list of high rollers.

In 1979 and 1980 Groppe gathered his friends at a series of luncheons at a downtown club to hear Ornish talk about his work.

"From the start," Groppe says, "Dean was very persuasive and very professional. He came across as the kind of person who could make the big leaps, the important discoveries, and that kind of person can get a hearing in Houston pretty much regardless of who they are or where they came from." Groppe also recalls a very positive reaction to Ornish's assertion that heart surgery bypasses the origins of the disease. "We are engineers and problem-solvers," Groppe says. "So, his idea of going after the causes of heart disease had a very clear, very practical appeal."

After doing his internship and residency at Massachusetts General Hospital and Harvard, Ornish moved to the Bay area in 1984. He lives and works there with Dr. Shirley E. Brown, a former Alvin Ailey dancer, whom he has known since his Houston days and who has served as the nutritional expert and co-director of all his research. The baby grand piano on which she plays classical music dominates their sparsely furnished living room while the electric guitar on which he plays Jimi Hendrix, blues, and jazz is tucked in a corner.

Before moving west Ornish raised enough money to set up the Preventive Medicine Research Institute, essentially his one-man show, which is affiliated with the University of California at San Francisco. Although he says he has not totaled it up, Ornish reckons that he has raised and spent about \$3 million received from foundations and individuals in the past six years.

"The thing about fund-raising," Ornish says, "is that it is a very small group of people who have a lot of money in this country and they all know each other and they all seem to owe each other favors of one sort or another, and in some ways our research was the beneficiary of this situation."

Groppe plugged the young doctor into this network. Some of America's richest men have sought treatment for their own heart problems. At least two now travel everywhere with their own vegetarian cooks. And many others have backed the doctor because he holds out the possibility of a cure for a disease that strikes down so many people with big offices. Ornish's circle - some financial backers, some followers - has included Frank A. Lorenzo, former chief of Continental and Eastern Airlines; Michael Milken, the deposed junk-bond king of Drexel Burnham Lambert; Fenton (Pete) Talbott, chief executive of an American Express subsidiary; Jay Pritzker, of the multibillion-dollar Chicago-based family of financiers; and Gerald Hines, the Houston-based real-estate developer.

There is a philosophical statement toward the end of Ornish's otherwise dry, scientific article in *The Lancet*. It says: "Can these comprehensive life-style changes be sustained in larger populations of patients with coronary heart disease? The point of our study was to determine what is true, not what is practicable."

Midway through a long monologue in which he tries to explain what kind of truth he is after Ornish says: "Heart disease is only a model and a metaphor for what I'm doing and it is certainly not limited to heart disease. It is about trying to help people heal their lives in ways that go beyond illness. The idea is that everyone experiences pain, the pain of isolation, the pain of separation, the pain of loneliness or whatever form it comes in. And, I am becoming increasingly convinced that a sense of isolation is at the root of many self-destructive behaviors and of the chronic emotional stress that can lead to illnesses like heart disease."

Ornish seems especially proud when he talks about how his patients have learned to cope with their emotional pain and isolation and makes group support and talking about feelings important parts of his program. Several patients tell of how they are happier in their marriages than ever before. Others

explain that they have changed jobs or entire careers to find less stressful employment.

As we strode along the bay front during our walk before the Tuesday evening meeting, Werner Hebenstreit boasted to me: "I used to be Type A all the way, and I was a very hard person to get along with. Now I am a real C-minus. I'm a wimp and proud of it. I don't let anything bother me. That's what Dean has done for me."

In a later conversation he added: "Look, I would not go as far as to say that this is a cult, but there is a great deal of spirituality to it. We are taught in the group that the amount of love and friendship we contribute makes us all stronger. But anyway, as long as it delivers results I don't see what's wrong with an Ornish cult."

Just then the doctor came in. I had not met him yet and as I introduced myself, Hebenstreit blurted out, "We were just talking about you, Dean Ornish, the guru."

As he took my hand and looked me in the eye, Ornish said with a grin, "Oh, no, anything but the g-word."

.....

"The so-called core of solid fact which forms the point of departure as well as repose, is deeply embedded in me: I could not possibly lose it, alter it, disguise it, try as I may. And yet it is altered just as the face of the world is altered, with each moment that we breathe."

- Henry Miller

"The bodily appearance of man speaks to us of a particular relation to heaven and earth. Man cannot fly nor need he crawl. He is neither bird nor worm. He stands and moves upright, based on the earth but pointing towards heaven."

- Karlfried von Durckheim

"The body does not lie."

- Martha Graham

BODY/KINESTHETIC INTELLIGENCE -

The unity of the perceptual field . . . must be a unity of bodily experience. Your perception takes place where you are and is entirely dependent on how your body is functioning. Alfred North Whitehead, Modes of Thought.

Through our bodies we experience the external world and come to know it. The body is like a very complex receptor through which we receive and interpret thousands of bits of information every second - information about the weather so we know what clothes to wear; information that allows us to move from one place to another without bumping into things; information that enables us to protect ourselves from physical harm; and information by which we can participate in a wide variety of complex motor activities such as sports, ice skating, driving a car, and walking without toppling over.

Body/kinesthetic intelligence is the ability to use the body to express emotion (as in dance and body language), to play a game (as in sports), or to create a new product (as in devising an invention). In his book, Frames of Mind, Dr. Howard Gardner identified seven intelligences - seven distinct ways that we learn and know about reality (and he believes that there may be more). Learning by doing has long been recognized as an important part of education. Our bodies are very wise. They know things our minds don't and can't know in any other way. For example, if I gave you a piece of paper and asked you to lay out the keyboard of the typewriter, without moving your fingers, could you do it? Probably not. But your fingers know the keyboard without even pausing. People such as actors, clowns, and mimes demonstrate the endless array of possibilities for using the body to know, understand, and communicate, often in ways that deeply touch the human spirit.

One of the most important findings of contemporary brain research is the discovery of the deep connection between the body and the mind. In fact, some researchers no longer talk simply about the body, but of the "body-mind." In The Possible Human, Jean Houston describes this as follows:

Each of us can bring awareness to body functions and to movements that we had, in the mainstream of Western thought, only recently assumed to be totally autonomous. Indeed, it has been shown that it is possible, through conscious directed thought, to control the firing of a single motor neuron (in the brain). With subtly developed body awareness, it is possible for the individual to become the conscious orchestrator of health. We can no longer escape the understanding that *psyche* (mind) and *soma* (body) are inextricably woven together.

Modern biofeedback research and training is teaching thousands of people how to consciously

control what were once thought to be "automatic" physiological process by learning to shift attention to those processes. For example:

- We can learn to control the temperature in our hand and other body parts.
- We can learn how to slow down or speed up our heart rate, including lowering or raising overall blood pressure.
- We can be taught "mind-control" techniques for cooling ourselves down when too hot and warming ourselves up when too cold.
- We can learn how to consciously alter or modulate the electrical frequencies (brain wave patterns) of our own brains, thus creating optimal states of mind for various situations we must deal with daily.

Unconsciously we know how to control these things and much more. The sensitive electronic equipment used in biofeedback training simply helps us to know consciously what we already know unconsciously. And once we have learned to pay attention to our bodies in this way, the knowledge and wisdom of the body is available to us in our everyday lives. What is more, the abilities mentioned above are just the "tip of the iceberg" of the potentials we all possess in this amazing body-mind connection.

What are some of the dimensions and capacities related to our body/kinesthetic intelligence? The following exercise illustrates capacities connected with the body and physical motion.

Exercise

Control of Body "Voluntary" Movements

The ability to consciously make the body respond to or do what the mind expressly wants is itself no small feat. There are whole ranges of so-called "voluntary" movements we make where the mind is more or less consciously directing the body's performance, such as in dancing, hitting a ball with a bat, riding a bike, knitting a sweater, or learning to drive a car. With conscious and disciplined practice, all of these things improve and become internalized until they are almost "second nature" to us.

This is a version of the childhood game of patting your head and rubbing your stomach at the same time. I have created the following short exercise based on a much larger, more involved exercise called "Multitracking" by Jean Houston. You may be surprised at how many things you can train yourself to do at the same time!

- Start by slowly jogging in place. As you jog, move your head back and forth from left to right and right to left. Start swinging your arms with your head from left to right.

David Lazear

- Keep the jogging going, but now move your head and arms in opposite directions from each other. Now move them together again. Now apart. Now together.

- Continue the jogging while moving your head and arms in opposite directions. Add to this the snapping of your fingers and looking with your eyes in the opposite direction your head is moving. (Keep working on this sequence until it gets easier.)

- Then, finally, continuing all the movements above, start singing a song like "Old MacDonald Had a Farm" or "Twinkle, Twinkle Little Star."

Exercise

The Mind and Body Connection

The relationship between the images we form in our mind and our physical being is one of the most fascinating areas of contemporary research. It is quite possible to produce profound changes in the body through both words and sensory images. For example, vividly imaging your favorite food will trigger a number of physical responses such as salivation in the mouth and anticipatory movements in both the throat and stomach. Likewise, it is possible to alter the body with the emotions. Consider the physical sensations when you sense fear or anxiety (even if it's only while watching a TV thriller) or how you can use "pleasant" images and thoughts to help achieve body relaxation. Think about the physical components connected with images of intense joy.

The content of images in our heads has a profound affect on our bodies. Try the following exercise and see what you can discover about this mind-body connection.

- Close your eyes and vividly imagine the following things in your mind. Notice where and how each of these images affects your body:

- the smell of fresh cookies baking
- the taste of a lemon slice
- the sound of finger nails on a blackboard
- the touch of velvet against your face
- the sight of a new puppy

- Close your eyes and visualize the following scenes as vividly as you can. Again notice both where and how they affect your body:

- You see yourself lying on a beach in the warm sun.
- You are walking down a dark street late at night and sense you are being followed.
- You have just seen a romantic musical show with someone very special to you.
- You see a young child about to be hit by an oncoming car.
- You have just made a very successful presenta-

tion that thrilled your boss.

- Finally, make a list of words that produce a physical response in you. Try to get a variety of words that produce fear, joy, excitement, anger, anticipation, disgust, etc.

- Spend a few minutes recording your experiences, observations, and reflections as you worked with this exercise.

Exercise

Mimetic Abilities

In our lives we learn many things simply by watching others and imitating them until we learn to do it on our own. children playing house, actors, playing a role on stage, learning how to perform such physical feats as high diving into water, skating backwards on ice, various gymnastics routines, and cooking a fine dinner are examples. Teachers have long known the importance of "learning by doing," especially in such subjects as science, typing, home economics, industrial arts classes, and of course physical education. Professional mimes, like Marcel Marceau, have taken this aspect of body/kinesthetic intelligence and turned it into a high art.

This exercise involves several types of "role-playing" to help you explore some of the possibilities of using your body to express yourself. Go ahead, give them a try. It is OK to risk feeling a little strange!

- On a blank piece of paper, list at least one life experience you associate with each of the following emotions: happiness, fear, uncertainty, anger, and satisfaction.

- Standing in front of a mirror, think of the life experiences you associate and then "embody" each emotion in the following ways:

- Create a facial expression that communicates the emotion.

- Try various body postures to dramatize the emotion.

- Experiment with a style of walking to communicate the emotion.

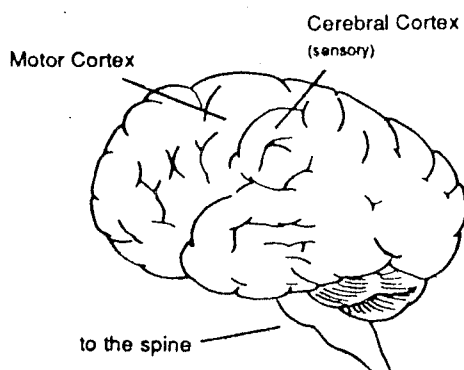
- Make up a physical gesture that you could associate with the emotion.

- Still working in front of a mirror, in Marcel Marceau fashion, try to mime-act out the following situations (this is like the game "Charades," but only for yourself):

- Someone baking a cake
- A very old man climbing a flight of stairs
- A woman riding on a bumpy bus
- A rent collector trying to get a tenant to pay
- Spend a couple of minutes recording your reactions to this exercise. What surprised you? What was difficult? What did you learn?

Body/Kinesthetic Intelligence and the Brain

Our body/kinesthetic capacities comprise a complex, intricate, highly integrated network of brain/body operations. The motor cortex of the brain executes specific muscular movements, with the right side of the brain controlling the left side of the body and the left side of the brain controlling the right side of the body. The cerebral cortex acts as a perceptual feedback mechanism, which both feeds information to the spinal cord and receives input from the rest of the body through the spinal cord. Once information has been sent and/or received and interpreted, the motor cortex brings about the appropriate body responses to match the information received by the cerebral cortex.



One of the key aspects in learning to use body/kinesthetic intelligence for knowing and to use it in teaching is to change our current attitudes toward the body. In The Possible Human Jean Houston states:

Ironically, we are all too often educated *out of* rather than *into* an awareness of our body. The active, indeed the wriggling child's body is urged to 'sit still,' to restrain its natural impetus toward movement and exploration as it is confined to chair and school desk. . .

Even when we would direct attention to training the body, we often provide methods for doing so that result in a dangerously distorted body image. Thus we are often guilty of regarding the body as something to be "brought into line." The resulting rigidity of posture is often mirrored in a similar rigidity of perception, of feeling, and cognition.

It appears that four major images dominate Western culture's attitudes and approaches to the body:

- It is a *wild beast that must be tamed*, thus the wriggling child must learn to control the spontaneous and natural urges to run, jump, and dance around.
- It is a *disobedient slave that must be disciplined*, thus we drive our bodies beyond comfort in physical exercise and have almost deified physical endurance sports which push the body beyond its limits.
- Our religious traditions have taught us that the body is a *vile thing that must be brought under subjection* of the spiritual, and thus we do not trust our bodies and at the greatest extremes are filled with disgust for "things that are *merely physical*."
- It is an *intricate mechanical instrument*, and like all machines you can pour certain things into it to make it run better, occasionally some malfunctioning parts must be replaced, and it is continually moving to a state of ultimate, irreparable breakdown.

Until these metaphors are replaced and our attitudes about the body change, the fullness of this way of knowing will not be available to us.

"In some important respects, children generally possess greater self-knowledge and awareness of the body than adults. The child is more in touch with his body - his movements, his sensations, his needs, and his desires. He moves and expresses his thoughts and his feelings more freely. His unblunted senses respond to a world that is more colorful and vital, and this perceived reality, in turn, enlivens him. . . Fairly early in life, the child's orientation shifts simultaneously away from the body and toward the external world. Mental processes are now experienced almost as though there were no concomitant changes occurring in the body. There should be an increasing orientation toward the external world, but it need not, and must not, be achieved at the cost of a diluted and distorted awareness of one's own psycho-physical (mind-body) reality."

Listening To The Body, Robert Masters and Jean Houston. (Dell, 1983)

(Experiential Learning - continued from page 23)

- The high degree of personal involvement promotes an openness to new ideas and to attitude change in the learner.
- Because of the need for cooperation, participants learn to adopt a more "global view" in approaching the problems presented.
- Because of the amount of active involvement, the learners have opportunities to develop human relations skills. Needs and interests of others are perceived, and then reckoned with. Interaction and opportunity for conflict resolution is a major advantage of using experiential learning.

MEDITATION: FOUR PORTALS - A. Arrien

This article explores the universal meditation postures that are most commonly experienced in all spiritual practices. It includes exercises in each universal posture, and reveals the various qualities that can be accessed during the meditation posture. Meditation itself is the process of being alone with oneself for the process of conscious discovery in time that is designated as 'sacred time' for going inward.

It can be an active form of meditation like the Western modes of prayer, creative visualization and affirmations; or it can evoke spontaneous information that can arrive in induced periods of silence and contemplation found in many Eastern modes of meditation. Any style that is preferred becomes a beginning portal for accessing Inner Wisdom.

Types of Meditation Postures: What Do They Reveal or Access For the Individual?

A. Sitting Meditation: "Accessing the Inner Teacher - Accessing the Quality of Wisdom"

Purpose: honoring of sacred time - a time set aside for introspection, contemplation, discovery, and honoring of the sacred or divine.

Posture: the posture assumed is one of sitting with eyes closed with legs crossed or uncrossed. Both Eastern and Western practices incorporate the bended knee or praying posture which is another posture used for sitting meditation.

Crossed leg postures such as Zazen and Lotus positions are more associated with Eastern practices; whereas, sitting uncrossed with eyes closed in a chair/pew/couch or on bended knees is more prevalent in Western practices (although some Oriental sitting practices are uncrossed with cushion underneath the individual)

Process: within this sacred time and posture one can experience the process of asking for guidance or asking for ways that one can handle internal and external situations with wisdom.

- an opportunity to transform the inner judge/critic to the fair witnessing/objective mind.
- an opportunity to receive guidance and inner direction to how one could handle his or her own life with wisdom.
- an opportunity to move beyond polarities, paradoxes, and oppositions one is experiencing internally and externally.

Assignment: Spend at least fifteen minutes each day in Sitting Meditation. Record your experiences in your journal.

B. Standing Meditation: "Accessing the Inner Warrior - Accessing the Quality of Presence and Inner Authority"

Purpose: honoring sacred time - a time set aside for introspection, contemplation, discovery and honoring of the sacred or divine.

Posture: the posture assumed is one of standing with arms and legs uncrossed with eyes open. This is a meditation posture found in Oriental, Tibetan, and Shamanistic practices. In some Western practices, standing postures are incorporated with kneeling and sitting postures within the total service or ceremony.

Process: within this sacred time and posture one can experience the process of discovering how one can stand up for oneself; have two feet on the ground; what it is like to take a stand; what it is like to stand on your own two feet; and what it is like to set limits or come from a place of self-respect and self-esteem.

This is an opportunity to access one's presence, personal power, authority and experience the inner warrior. In Eastern terms 'the warrior' is an individual who has the ability to honor and respect oneself and others (i.e., as is demonstrated in the marital arts of Aikido and Tai Chi). It is that quality of being aware and being present without effort or holding back. It is the capacity to own one's presence and personal power without giving it away or deflecting it.

In this posture, one is able to learn about looking at oneself and others from any stance, posture, and perspective. It is the posture of 'respect' - that quality which means the 'willingness to look again' from a non-fixed posture or perspective. This is the posture where an individual sets limits without guilt. It is the ability to say 'yes' or 'no' and understanding these words as articulating an acceptance of a request or a denial or refusal of a request. The inner warrior does not confuse yes or no with a meaning, 'I like you' or 'I don't like you.' YES means only 'I agree to the issue or perspective at hand' and NO means that 'I don't agree to the issue or perspective at hand.' It is the ability of the inner warrior to look at the situation as an opportunity to resolve an issue or share a perspective rather than to take differences as a personal affront.

Assignment: Spend at least fifteen minutes each day in standing meditation. Record your experiences in your journal.

C. Lying Meditation: "Accessing the Inner Healer - Accessing The Quality of Love and Renewal"

Purpose: honoring of sacred time - a time set aside for introspection, contemplation, discovery, and honoring of the sacred or divine.

Posture: the posture assumed is one of lying with eyes closed with one arm up bent at the elbow at one's side. The arm raised at one's side prevents the individual from going to sleep, and should the individual fall asleep the arm will fall onto the floor or onto the individual to awaken them.

Lying on the floor with eyes closed and arm up is a posture of conscious meditation used for healing and nurturing processes. It is a meditation used in some Buddhist and Shamanistic practices. It is a posture that is not often used consciously for meditation because of the universal association with going to sleep. Yet when this form of meditation is used consciously, it can be revitalizing, healing and restorative. It can also resemble a lucid dreaming state, as can all the meditative processes.

Process: within this sacred time and posture one can consciously choose to heal oneself or others; and one can ask for divine guidance and assistance in healing parts of one's nature.

- a way of accessing healing, nurturing, loving and caring energy from within; process of healing oneself and others; and it is the posture that is most associated with replenishment and direct experiencing of human love and divine love.
- is universally the posture that all human beings use for rest, sleeping, and dreaming. This posture used consciously can be used for building self-esteem and nurturing oneself in equal proportion to how one nurtures others.

Assignment: Spend at least fifteen minutes each day in Lying Meditation. Record your experience in your journal.

D. Moving Meditation: "Accessing the Inner Creator - Accessing the Quality of Creativity"

Purpose: honoring of sacred time - a time set aside for introspection, contemplation, discovery, and honoring of the sacred or divine.

Posture: The posture assumed most in Moving Meditation is identified as 'walking meditation' - although other moving activities when consciously used as a meditation could include running, swimming, dancing, driving, cooking, vacuuming, or any other activity which the individual selects for the purpose of listening to the internal states or processes activated by the moving activity.

Any body posture that remains open and uncrossed for a sustained period of time can induce a natural altered state where individuals spontaneously problem solve, think about other people, resolve issues, and are open to possibilities that they have not entertained while they are involved in other activities.

Purpose: This posture supports the aspects of trust, openness, and encourages the unexpected since one's attention is engaged in a moving activity. It is during these activities that intuitive insights and creative solutions appear spontaneously, often unsolicited. Perhaps moving meditations teach human beings about the wonder of what can happen when one trusts and lets go of control.

Assignment: Spend at least fifteen minutes each day in a conscious Moving Meditation. Record your experiences in your journal.

About the author. . . Angeles Arrien

*"My boat struck something deep.
Nothing happened:
sounds, silence, waves.
Nothing happened
or perhaps everything happened,
and I am sitting in the middle of my new
life."
"Oceans," by Juan Ramon Jimenez*

A native Basque, Angeles Arrien was raised in two cultures, in Spain and the United States. Inspired by this rich heritage, she has studied anthropology and cross-cultural themes, with special research in the areas of myth, folklore and symbolism to discover the universals that all human kind share.

Angeles is a core faculty member at the Institute of Transpersonal Psychology and the California Institute of Integral Studies in San Francisco, California, and has been Vice President of the Association for Transpersonal Psychology. She lectures nationally and internationally, and her work has appeared widely on radio and television.

In her private practice Angeles uses esoteric and cross-cultural symbols as tools for accessing intuition and psychomythology. Psychomythology encompasses the logos, the eros, and the mythos, or life purpose, within a person. She is a masterful teacher in the classic sense of "drawing out" the wisdom that is inherent within another person.

She is the author of The Tarot Handbook: Practical Applications of Ancient Visual Symbols (1987 - Arcus Publishers), The Four-Fold Way: Indigenous Wisdoms Applied In Contemporary Times (1991, Harper and Row) and Signs of Life (1992, Arcus).

EXPERIENTIAL LEARNING - Reno Taini

People seem to learn quickest and retain what is learned longest, not by being spoken to, but by experiencing the consequences of their actions.

The true challenge in our time is to be able to design learning situations and present activities that offer this sense of value to the people who are now in need of learning about teamwork, cooperation, trust, leadership, and more. There are many approaches, yet all of these experiential methods deeply involve the students. Here, there is personal involvement in an action. And action really means some commitment has resulted. The common ground is the experience. This offers feelings and insights nearer the workings of the real world. And it is this action, if processed correctly, that holds rich learnings and understandings. The needs and wants of the group are uncovered, as well as the feeling of new concepts and skills.

To be honestly simple, educators and professional trainers seem to generally agree that experiential learning takes place in three stages. Briefly, the three stages are:

1. **Preparation** or planning,
2. The **Enactment** period (participation and generation), followed by
3. **Processing** of the activity, where analysis of the activities of the participants is critiqued. This is the true value of the experience - the examination of the consequences of their actions . . . themselves. This post activity analysis is the crux of all true learnings.

As has been brought forward in the training industry, games, activities, and simulations are a quick and exact way for the individual participant to gain insight into their own behavior as well as appreciate the varied needs and wants of the others in their group. This activity-based learning is done to simply engineer situations that simulate the problems of the everyday work place and then elicit behavior responses and patterns that tend to be very personal in a short amount of time.

Obviously, these engineered opportunities happen faster than in "real-world time." Insights and skills can be offered to the learners much quicker and clearer than during a week's work at the office.

So why consider the use of experiential activities that present games and simulations to learners? It is hard work - yet, it is also powerfully effective work. Findings indicate that learners sharpen their skills of analysis and communication. Information is gathered in such a way that their judgments and experiencing the consequences of these judgments happen immediately. Irrelevant issues are dismissed, priorities are set, facts are gathered and separated from opinion, and goals are set realistically. What is vital and urgent is crucial to understand. What can be

done, and what must get done, and what gets done is the area of analytical thinking.

When the learner interacts with others, insight is gained about individual behavior patterns. The perceptions, goals, and needs of others offer more and more insights that affect future interactions. This is the simple but powerful insight and sensitivity objective of experiential learning.

Debriefing: Post-Activity Discussion and Analysis

It is during the post-activity discussion process that the learner, fellow participants, and the instructor share what they experienced, their feelings toward each other, and toward the new concepts, skills, and procedures they were attempting to apply.

It is in the analysis and discussion that most of the learning occurs. It is not the outcome of the specific activity, it is the fact that this session is all-inclusive and interactive. Everyone has an opinion and a view, not only the instructor. This is meaningful and satisfying.

Instructors of experiential learning are truly "human engineers", arrangers of experience. The potential for great impact compensates for this demanding role. No longer is the dispensing of information enough. Today's excellent instructor designs and prescribes activities and exercises that will give the learner the very best opportunity to experience the consequences of their own actions . . . themselves. Here the trainee is often doing the talking.

Advantages of Experiential Learning

- The learner can apply prior learnings
 - There are clear chances for self-discovery where the learner gains insight and sensitivity.
 - The learner is active, participating and interacting throughout with other learners in the group.
 - Nobody is excluded from the action, and the learning process unfolds at a much higher no-nonsense efficiency level.
 - The participants can learn from the shared experience without paying the price of wrong or sloppy decisions made in real life. (The military and the space programs obviously utilise this learning process to avoid the unforgiving prices of errors in judgment.)
 - Time can be compressed: A sequence of real-life events that would require months can be simulated in hours, or minutes, thus accelerating learning.
 - Feedback is immediate. Participating learners are usually able to see the consequences of their chosen actions at once, and can then modify their behavior accordingly.
 - Discussion is realistic. There is direct group evidence as to how each participant did in their applications of a given concept or skill. Often, this is very
- (Continued on page 20)

THE ASIAN ORGANISATIONAL TRANSFORMATION NETWORK

ICA India

Bombay: 13, Sankli St., 2nd Floor, Byculla, Bombay 400 008 INDIA
Panvel: Plot 10-14, Road 1, Sector 19, New Panvel, 410 217 Raigad District INDIA
Pune: A5/11 Meena Nagar, Koregaon Park, Pune 411 001 INDIA

LENS Services Pvt. Ltd.

New Delhi: 25 Navjivan Vihar, New Delhi 110 017 INDIA

LENS International Malaysia Sdn. Bhd.

Kuala Lumpur: P.O. Box 10564, 50718, Kuala Lumpur, MALAYSIA

ICA Australia

Sydney: G.P.O. Box 1792, Sydney, NSW 2001 AUSTRALIA

ICA Taiwan

Taipei: 6/F, 53-1 Chung Shan N. Road, Sec. 7, Taipei 11136, TAIWAN, R.O.C.

ICA Hong Kong

Hong Kong: Woodside, Mount Parker Road, Quarry Bay, HONG KONG

LENS International

Tokyo: Seijo 9-1-5-102, Setagaya-ku, Tokyo, 157, JAPAN

ICA Philippines

No. 603 Boni Ave., Mandaluyong, Metro Manila, THE PHILIPPINES

Image: An Action Research Journal on Personal and Organisational Transformation Subscription Form

| Rates (4 issues): | <u>India</u> | <u>International</u> | |
|--------------------------|--------------|----------------------|------------|
| Individual | Rs. 250 | \$ 20.00 | |
| Corporation/Organisation | Rs. 1,000 | \$ 80.00 | (4 copies) |

Name _____ Phone _____

Company or Organisation _____ Position _____

Address _____

Amount Enclosed _____

Make Check Payable to: The Institute of Cultural Affairs: India and send to: ICA: India, 13 Sankli St., 2nd Fl., Byculla Bombay, 400 008 INDIA

