

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 5

1992

Fight, Flight, Or Flow?

"Fight or flight" is a term originated by Walter Cannon in the earlier part of this century, to describe the response of experimental animals to a life-threatening physical threat. It is characterized by a variety of physiological and biochemical reactions in the body designed to promote survival either by providing improved strength and decision making in combat, or greater speed in locomotion away from a scene of potential peril. However, the nature of stress for modern man is more apt to be psychological rather than physical, and chronic and insidious rather than an isolated acute event. Unfortunately, our bodies are still apt to respond with "fight or flight" changes that are now no longer useful or appropriate, but often harmful, and contribute to cardiovascular disorders and other "Diseases of Civilization."

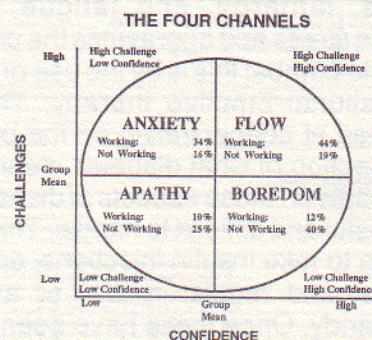
Many such stresses are unavoidable in contemporary life, particularly in the workplace and it is preferable to learn how to cope with them. A recent study of some 49 high-level executives revealed that they were worried or tense more than twice as much when they were at work, and that they were under significant stress almost 70% of the time during the work day. Those who had the greatest stress levels reported about four times more physical complaints and illnesses than controls, and had a much higher

incidence of psychological problems such as anxiety and depression. Often problems come from setting unrealistic goals which are rigidly pursued in an inflexible fashion. As Robert Browning noted, "A man's reach should exceed his grasp; or what's a heaven for."

Successful executives can learn to "flow" with their stress, when they perceive that challenges may represent opportunities that are within their capabilities, and which allow them to utilize their time and talents optimally. *Anxiety* occurs when challenges are high but ability is low. Conversely, the combination of low challenges and low skills leads to *Apathy*. Low challenges and high skills result in *Boredom*. "Flow" results when challenges and skills are high but realistically matched to talent and time.

These four psychological states may be portrayed as noted below in terms of their relationship between "Challenges and Confidence." Also included is the percentage of time executives typically spent in each quadrant while on the job and off.

Executive Excellence, February 1992



For further information on the original source of abstracts and other reprints available on similar subjects, please send a self-addressed stamped envelope to: Reprint Division, American Institute of Stress, 124 Park Avenue, Yonkers, NY 10703.

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The Newsletter of
**THE AMERICAN INSTITUTE OF
 STRESS**

Paul J. Rosch, M.D., F.A.C.P.
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Stress and Diabetes

Most diabetics know that blood sugar levels are affected by diet, dosage of medication, and exercise. Few, however, recognize the important direct and indirect effects of stress. Emotional stress is associated with the release of hormones like adrenalin and cortisone, which raise blood sugar levels sharply through the breakdown of carbohydrate and protein stores in the body. Stress can also contribute to eating binges, erratic meal times, and other dietary indiscretions. Similarly, stress interferes with constant compliance with a regimen that requires regular self administration of insulin and other lifestyle modifications. This results in poor diabetic control and fluctuations in blood sugar that produce symptoms of anxiety, nervousness, lethargy, and fatigue, which produces more stress and aggravates the problem.

One way to combat this is by the use of what is known as Rational-Emotive therapy. This approach is aimed at concentrating on the patient's personal perception of what diabetes means, with specific emphasis on those aspects of disease that are most stressful and difficult to handle. This might include having to take insulin injections, adhering to a strict diet and regular meals, or avoiding alcohol and candy. Once these have been identified, attention is focused on the underlying factors responsible for the feeling that these aspects of their diabetes are unmanageable, and they experience a sense of being out of control. The therapeutic process often reveals that patients harbor deep-seated negative thoughts about the fairness of their lives, or have a distorted self-image that can be corrected.

*Journal of Emotional-Emotive and Cognitive
 Behavior Therapy, 8-21-90; Cortlandt Forum, 12-91*

Posture, Stress and Cholesterol

Everyone from kids to senior citizens are currently being urged to have their cholesterol levels checked. In some instances, HDL, triglycerides, and other substances linked with coronary heart disease are also being measured. While most of these tests are done in doctors' offices or laboratories, cholesterol screening facilities are not uncommonly found in shopping malls or public facilities. There have been concerns about the accuracy of some of the quick cholesterol kits currently being used. There has also been some controversy as to whether such testing must be performed in the fasting state and whether other restrictions need to be taken into consideration. Most people worry about what they have eaten before a test, but a recent study suggests that mental stress and previous posture can also affect the accuracy of results.

Twenty-six healthy men between the ages of 18 and 39 with normal cholesterols, blood pressure and weight were studied on alternate weeks during which they performed either stressful mental or a standing physical task. Cholesterol levels were determined during the resting pre-task period, during the 20 minute test period, and 30 minutes after the end of the mental or physical activity period. Sitting and doing mentally stressful tasks raised cholesterol levels an average of four points, and this persisted in the recovery period. Standing raised cholesterol 22 points, but values returned to normal after 30 minutes. It is not known how long the effects of stress on cholesterol last, but prior studies of tax accountants throughout the year suggest that it may be for days and weeks, and that they are more important than dietary influences. In any event, if you are under a lot of stress and run up a flight of stairs, you can expect higher than usual test results.

Archives of Internal Medicine, April 1992

New Mental-Mental Claims Crisis

Workman's Compensation was originally created to assist laborers who suffered a physical injury on the job, such as the loss of a limb, or "physical-physical injury." Over the years, however, compensation has been awarded for so called physical-mental injuries, such as when a machine operator accidentally loses the tip of a finger and is no longer able to perform any future machine work because of anxiety and fear. There

"Confucius say, 'Showoff always shown up in showdown.' "
 Chinese Fortune Cookie

are also mental-physical injuries, like a disabling heart attack in a police officer allegedly caused by repeated exposure to dangerous and stressful situations. In New York, Los Angeles, and many other municipalities, any police officer who suffers a heart attack on or off duty, is assumed to have a work-related disability and is compensated accordingly, even if it occurs while fishing on vacation. More recently, however, there has been an alarming increase in so called mental-mental claims, which are more difficult to evaluate. An example of this might be a secretary who is unable to work because of severe depression stemming from a supervisor's constant and unwarranted criticism.

This insurance system is now known as Workers' Compensation, to acknowledge the influx of females into the work force since it was originally enacted. Regulations vary from state to state and some do not recognize so-called mental-mental claims. On the other hand, California is extremely lenient in this regard and the phenomenal increase in such stress-related claims now threatens to bankrupt the system. An analysis by the California Worker Compensation Institute found that white collar employees file two-thirds of all mental stress claims, and that they tend to either be paid slightly less (clerical-office workers) or slightly more, (the passed-over manager) than other injured workers. Three out of four claimants cite job pressures and about half complain of harassment. In nine out of ten cases, their stress reaction is allegedly due to multiple episodes over a long period of time rather than a single incident. Almost half of the claims are filed by employees within their first year on the job, and 20 percent occur within the first four months of employment, possibly in anticipation of being laid off after the conventional six month probationary period. As a consequence, California has recently enacted legislation prohibiting such mental-mental claims within the first six months of employment unless the evidence is compelling and overwhelming.

*California Worker Compensation Institute 1991
St. Paul's "The Human Factor," Spring, 1989*

Depression and Aging

It is commonly believed that depression is more common as we grow older due to problems, such as mid-life crisis, increasing illness, social isolation, and financial problems in the geriatric population. However, a recent American Board of Family Practice survey of 1,200 Americans revealed that more than four out of five viewed middle-age as a period of positive mental health associated with deepening relationships between family and friends. In addition, rates of depression were actually lower in those over 40 and were lowest in those over 55. Researchers attributed this to the greater financial security of an established career, increased wisdom and experience in dealing with daily stresses and more resilience in

accepting the fact that change is an unavoidable part of life. Also cited were more time to pursue hobbies and leisure activities without having to hire a baby sitter and a greater sense of control than is possible when you are in your 20's and 30's and have to juggle family responsibilities with trying to climb the corporate ladder.

Executive Edge, 12-91

"We do not count a man's years until he has nothing else to count."

Emerson

Coffee, Coke And Craziness

There is considerable controversy about the adverse effects of caffeine on hypertension and coronary heart disease. However, there is little doubt about the stimulating effects of caffeine on the central nervous system. Some heavy coffee and cola drinkers may actually become addicted to caffeine. In one recent report, it was noted that two young men suffering from alcoholism, psychosis, and drug abuse, were also heavy coffee drinkers. Neither had shown any improvement after admission to a psychiatric facility, but did appear to calm down following forced abstinence from coffee. After a period of time, both began stealing coffee, and one actually ate coffee granules when there was no coffee to drink. Moreover, when they obtained coffee they quickly became unmanageable again. It had previously been reported that banning coffee and soft drinks containing caffeine in psychiatric facilities resulted in a decreased incidence of destructive behavior and assaults on staff members. As a consequence, some hospitals are increasingly eliminating or sharply limiting caffeine containing products.

*British Journal of Psychiatry, Vol. 159, 565-567
Hospital and Community Psychiatry, 42:84-85
New Sense Bulletin, 2-19-92*



Stress Reduction And Fraud

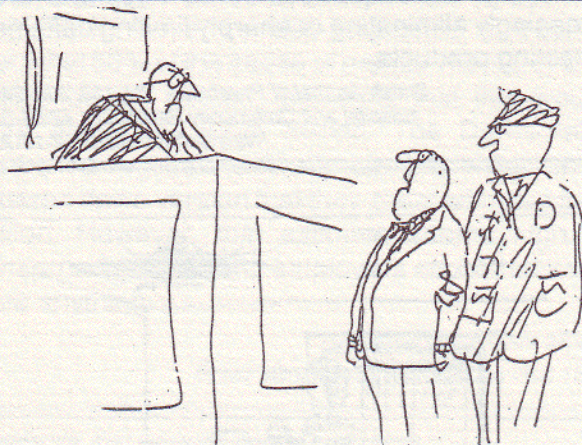
Although the advertisement ironically promoted a \$5.95 way to relieve stress, it actually had the reverse effect. Numerous magazines were never paid for running the ad, and countless consumers never received their promised stress relieving punching bag. The advertising agency responsible for the anti-stress ad was recently indicted on 17 counts of mail fraud. They used a variety of dummy corporate names to defraud *Life*, *Better Homes and Gardens* and *Chicago*, of more than \$50,000 in 1989 and 1990. If convicted the principals could spend up to 85 years in jail and face a fine of \$4.3 million.

Magazines are increasingly under pressure to expand their advertising because of steadily declining revenues and profit margins. A survey of 371 magazines also revealed that advertisers are taking much longer to pay their bills, if they pay them at all. Past due accounts now exceed over \$122 million, compared to \$73.9 million in July 1989. The Media Credit Association estimates that fraudulent advertising accounts for 2% of all magazine ads, and is currently working actively with the U.S. Postal Inspection Service to curb the problem. They are hoping that their extensive documentation of scams such as the stress relieving punching bag will alert magazine officials to the problem. As the Executive Director of MCA noted, "Credit managers have long memories. If they are screwed once, they never forget."

Crain's New York Business, 9-8-91
New England Journal of Medicine, 9-5-91

"I like not fair terms and a villain's mind."

Shakespeare



"One last question, your Honor. Did I come even close to getting away with it?"

Japanese Electronic Stress Reduction

Around 10 years ago, Pioneer Electronic Corporation brought out its Bodysonic chair, which allowed

you to listen to music and at the same time feel its varying vibrations throughout your body. It never really proved very popular, and the company has now introduced a souped up descendant in Japan known as "Relative-1." Subjects recline in a black, overstuffed chair with a curved plastic shield that fits over closed eyes. This contains 16 small red lights which flash at specified intervals designed to tone your brain waves down from stressed-out Beta frequencies, to the more relaxed Alpha patterns seen in experienced Zen meditators. This is accomplished by means of signals transmitted from a plastic band around the forehead and a tiny clip attached to an earlobe. These messages are relayed to a brain wave measuring device that continually changes the patterns of the flashing lights until the desired effect has been achieved.

According to the division's general manager, stress-management counseling has not been very successful in Japan because "Japanese are too industrious... We can't fight stress. We should get along with stress." This contraption helps to "re-activate and re-energize oneself both physically and mentally without any exertion" by means of its "Optically Driven Self Brainwave Feedback System." The program takes about 30 minutes, but if you're in a real hurry to relax, there is also an 18 minute version. A number of "techno-relaxation dens" with names like the Brain Mind Gym PSY have been springing up in Tokyo. Pioneer has been testing the chair at its members-only club, which is called "Mother" - "to evoke the carefree nature of life in the womb." They hope to sell 100 systems a month in Japan at about 1.5 million yen each (around \$11,200) but you will need an additional 1.2 million yen for the accompanying sound-proof capsule which is recommended for maximum relaxation. If you can't make it to Japan, exports should start reaching the U.S. sometime in 1993. Pioneer is best known for its car radios and laser videodiscs, and one can only wonder what "Relative-2" will look like. *Wall Street Journal*, 3-26-92

"Sickness is felt, but health not at all."

Thomas Fuller, M.D.

Socio-Economic Support And Heart Attacks

Numerous studies have reported that strong social support, care-giving, and care-getting have beneficial effects on health and life expectancy. This appears to be especially evident in the elderly and those with chronic diseases. Two recent reports in *The Journal of the American Medical Association* now confirm this in heart attack patients. Those who lived alone had twice as many heart (continued on page 5)

attacks after six months and there was also increased risk in longer follow-up periods.

In another study of patients with well documented coronary artery disease, those with an annual household income of \$40,000 or more had five-year survival rates of 91% compared to only 76% in those with incomes of \$10,000 or less. Unmarried patients only had a 50% survival rate after five years compared to 82% in those who were married or reported having a confidant. In an accompanying editorial, it was suggested that stress may increase the risk of fatal disturbances in heart rhythm because of associated increased activity of the autonomic nervous system. Previous studies have also reported that heart attack victims who have dogs, cats, or even a bird, also have longer life expectancies than those without pets.

JAMA, 267:515, 1992

"Hospital Practice," 4-15-92

"Let my heart be wise. It is the gods' best gift."

Euripedes

Olive Oil, Lemon Juice And Celery

Many widely used medications, including digitalis, quinine and aspirin, were derived from folk medicine preparations. Recently, there has been renewed interest in a variety of naturopathic products that may have therapeutic effects. Most claims about the efficacy of these varied nostrums don't stand up to scientific scrutiny, but two recent reports may pass muster. The staid and prestigious *The British Journal of Surgery* recently published a paper advocating olive oil and lemon juice as a treatment for gallstones. Three surgeons reported the case of a man who was found to have multiple gallstones on sonography after an attack of biliary colic. He was referred to a surgeon, but after several months of waiting for an appointment via the government system, he consulted a local herbalist. He was instructed to get a pint of olive oil and ten fresh lemons, and "after a twelve hour fast, he was to take four tablespoons of olive oil followed by one tablespoon of lemon juice every fifteen minutes until the olive oil was finished." About 12 hours after he had completed this, he developed diarrhea and abdominal pain, and passed 24 stones, four of which measured an inch by an inch and a half. He remained well until two years later when he had another attack, and a solitary gallstone was surgically removed. According to the herbalist, the practice is quite common and usually not associated with recurrent gallstones. There are a lot of new approaches to treating gallstones, including dissolving them with ether, crushing them with sound waves, and laparoscopic surgery, but the authors suggest trying olive oil and lemon juice first.

Another folk remedy recommends celery for high blood pressure treatment. Five years ago, the father of a medical student developed a mild case of hypertension, and found that by simply adding a quarter pound of celery every day for a week, his blood pressure returned to normal. His son became intrigued, and subsequently searching for some explanation, discovered that celery contained a chemical which relaxed the smooth muscle lining of blood vessels, thus lowering blood pressure. In normal rate, a dose equivalent to four stalks of celery a day lowered blood pressure an average of 13% and also reduced cholesterol levels. The celery chemical appears to interfere with the formation of stress-related catecholamine hormones which cause blood vessels to constrict. In the test tube, it blocks the activity of an enzyme which is necessary for the production of adrenalin and nor-adrenalin.

Unlike the British surgeons' endorsement of olive oil and lemon juice for gallstones, few physicians are yet likely to suggest a celery diet for hypertension. Celery is rich in sodium, which many hypertensives need to avoid, and it also has other chemicals which could be toxic in high doses. Nevertheless, studies to isolate the active ingredient could conceivably lead to a safe and more "natural" treatment for some hypertensive patients.

Science News, 5-9-92; The British Journal of Surgery, 1992

"Man dies when he wants, as he wants, of what he chooses."

Jean Anovich

Stress Reduction Lowers Cancer Deaths

In a recent study of 66 patients who had undergone surgery for malignant melanoma, 30 participated in a six-week program that emphasized training in stress-reduction techniques such as deep relaxation procedures, cognitive restructuring and behavioral modification. They were encouraged to continue these practices on a daily basis. The remaining patients were handled in routine fashion. On follow-up five years later, psychological testing revealed that those who had participated in the stress-reduction training program had much less evidence of mood disturbances and had developed significantly better coping strategies. In addition, they had much lower rates of cancer recurrence.

The reason for this was not clear although there was some evidence that they also had better immune system defenses compared to the control group. Whether this was due to the improved emotional status noted in the stress reduction group or other psychological factors remains to be seen.

American Medical News 4-15-92

California Curtails Compensation Claims

Job stress worker's compensation claims in California have gone out of sight and threaten to bankrupt the system. Annual legal and medical fees alone often exceed the total actual awards of many states. So-called mental-mental stress claims are a major problem. As a result, the legislature has suddenly enacted a new subsection to the existing law, placing limits on an employee's right to pursue such claims. No benefits will now be awarded for psychiatric injuries unless there is at least a six-month history of employment, although this need not be continuous. The major reason for this has been a problem increasingly encountered in probationary employees, who claim that their stress-related injury is the result of termination of employment at the end of their probationary period. However, the door is still open for injury claims related to "a sudden and extraordinary employment condition," regardless of the length of employment, although the definition is hazy. "Regular and routine" events include normal disciplinary and performance evaluations and demotions, or layoffs and transfers that are non-discriminatory and in good faith. However, it is still not clear whether the law also prohibits employees from pursuing a civil action against an employer during the six-month probationary period, or whether appellate courts will make some provision for such a legal remedy. These limitations do not apply to psychiatric or mental injuries related to a physical injury, such as severe depression due to chronic back pain from a low back injury. The Republican Governor also requested a requirement that 50% of the cause of mental-mental stress claims be job related, indicating that this would save employers \$225 million. The Democratic controlled legislature finally compromised on a watered down version that they claim will save \$48 million. However, that estimate seems high to concerned groups, and employers doubt that it will save anything.

California Labor Code 3208.3

Stress Management Advisor, July-Aug 1991

"California, that advance post of civilization."

J.B. Priestley

Living to Be 100

According to the National Institute of Aging, if you were born in 1980 or later, the odds against your living to be 100 are only 87 to 1, compared to 400 to 1 for people born in 1879. Twice as many

women reach 100 than men, and 80% of centenarians are white, although proportionately more blacks reach 105 and older. Nine out of ten of those older than 100 have incomes under \$5,000 per year, and surprisingly, half still live alone or with family members. The U.S. Census Bureau counted over 35,000 people aged 100 or more in 1990, which is double the amount ten years ago. While the accuracy of these figures has been questioned based on Social Security Administration data, with the current trend, we could have one million centenarians in less than one hundred years. The Today Show's weatherman, Willard Scott, who broadcasts birthday greetings to those who are 100 and older, reports that he now gets 50 requests a day, more than double the number received five years ago. An assistant who verifies each request close to airtime to protect against untimely deaths, notes, "we have had people who crossed the country in covered wagons, and some are older than the state they were born in."

When pressed for the secret of longevity, the responses are quite varied. One British sailor who had survived two shipwrecks, advised, "keep your feet warm, your head cool, your bowels open, and trust in the Lord." Another credited her exercise regimen, emphasizing "stand straight, it's very important." Although many had avoided caffeine, alcohol, and tobacco, a 101-year-old Russian emigre who is still so sharp he can recall his weekly salaries as a teenager, appeared to be an exception. He stated "I never took any medicine; I took Scotch, 95 years, every day of the week — and I never was drunk." Many attributed their longevity and well being to having spent their lives actively helping others, or having an optimistic attitude. That appears to be supported by a University of Kentucky study of 546 centenarians, which again confirmed the salubrious effects of a strong social support system. Most reported a close relationship with either a spouse, child, or nursing home staffer, and "had upbeat outlooks on life."

Newsweek, 5-4-91

"Far and away the best prize that life offers is the chance to work hard at work worth doing."

Theodore Roosevelt

Monitoring Medicines for Senior Citizens

More and more people are living longer, and most require medications for various chronic diseases that increase with age. However, patients over 65 can differ significantly from other adults because of the inability of their kidneys or liver to eliminate waste products as efficiently, and differences in the absorption and metabolism of medications. They may be particularly sensitive to drugs that affect the nervous system, and therefore, sleeping

pills and tranquilizers should be started in very small doses. Depression is a problem not infrequently encountered in the elderly, and anti-depressant drugs should also be reduced. These should preferably be taken at bedtime, since their administration has been associated with a higher incidence of falls and hip fractures. It is estimated that about one out of ten hospital admissions for older people are due to medication related problems.

Many difficulties stem from the fact that older patients may take over-the-counter preparations and receive prescriptions from several different specialists who are unaware of all the medications that are being taken simultaneously. In many instances, there may be incompatibilities and contraindications, or interference with the effect of a medication. More often, problems stem from poor communication with health professionals, and it is estimated that a third to half of elderly patients do not follow their prescription instructions correctly. Doctors also need to remember that some of the containers that pills now come in are extremely difficult to open, especially for patients with arthritis. Liquid preparations are preferable if patients have difficulty swallowing. Dosage schedules need to be kept as simple as possible. However, while long-acting preparations now exist for many medications and reduce the need for several doses, they might be absorbed in an unpredictable manner in older patients who frequently have erratic bowel habits.

Elderly people who start to become forgetful, depressed, withdrawn, and confused are frequently diagnosed as being senile or having Alzheimers' disease. Several studies report that dramatic improvement often follows the withdrawal or reduced dosage of drugs that can cause or contribute to these symptoms.

Infectious Disease News, 5-92



*"Poverty, decrepitude, wretchedness, and despair.
What's new with you?"*

Stress and Wall Street

A lower Manhattan psychologist whose clientele includes many Wall Street employees recently stated, "in the last 15 years I haven't seen the degree of stress that I see now." And that includes the aftermath of the 1987 stock crash. "Even though stock prices are up, interest rates are down and everybody is talking about economic recovery." One market strategist agrees that current conditions are "putting great stress on people." As stocks rise, there is the associated fear of making mistakes, either about the bull market's longevity or the performance of individual issues. As a consequence, there may be less long-term investing and higher anxiety levels about each little fluctuation in a particular stock. The tremendous pressure to produce immediate results, and quick profits has fostered what is known as the "cockroach theory" of investing. Namely, "if you see a problem with one of your stocks, you should assume that it's just the first of many problems you'll see from that firm. Find something else to own." The legacy of the 1987 crash with its financial constraints and loss of jobs remains, and has been further compounded by a rash of investment house scandals.

Some investors and brokers tend to take losses personally. As one psychologist said, "I see a lot of anger, and a lot of stress... there is a feeling that, if you fail, or if you make a mistake, there isn't enough time to correct it." Clients are counseled to distance themselves between their sense of self and their job, and to be more objective rather than personalizing their business activities. "You are not that bad stock that just cost you money; it's a thing, and it didn't hurt you on purpose. Look at it rationally." Similar advice was given by legendary investor Warren E. Buffett to traders at scandal ridden Salomon Brothers. "If you lose money for the firm by bad decisions, I will be very understanding. If you lose the reputation for the firm, I will be ruthless." Things are not likely to improve in the near future. As noted in a recent Los Angeles Times article, "the stock market is likely to become an increasing nervous and volatile arena, where rationality is in short supply and where no stock is truly safe." There is also the problem of computer driven trading. That doesn't necessarily mean that small investors should stay away from stocks, but rather that big players buy and sell for quite different reasons and pressures. It is important for individual investors to understand this, and not to be unduly influenced by such factors.

Los Angeles Times, Oct. 22, 1991

Gannett Newspapers

"There are two times in a man's life when he should not speculate: when he can't afford it and when he can."

Mark Twain

Book Reviews • Meetings and Items of Interest

Murphy, M. *The Future of the Body: Explorations into the Further Evolutions of Human Nature*. Tarcher, Los Angeles 1992. pp. 786, \$30.00

This is the right book, written by the right person, at the right time. Its purpose is to explore the limits of human potential through an exhaustive and scholarly review of relevant topics culled from various disciplines ranging from philosophy and religion, to metaphysics and medicine. These include mesmerism, mysticism, hypnosis, biofeedback, telekinesis and other paranormal phenomena, superhuman feats of all kinds, chi, martial arts, elan vital, the placebo effect, therapeutic touch, out of body experiences, and others too numerous to mention. These intriguing subjects are too frequently disregarded or dismissed as too fringy by mainstream Western medicine. However, they are all presented and discussed here with a degree of objectivity that is refreshingly balanced and illuminating, and should satisfy any scientist. There are over 2,000 references in this 800 page landmark effort, ranging from psychoneuroimmunology and brain neurotransmitters, to the Upanishads and other ancient Eastern and Oriental writings. The author possesses an awesome ability to ferret out common and mutually supportive leitmotifs in all of these seemingly disparate areas and integrate them into a cohesive and melodic theme. This is not surprising given his lengthy involvement in the field of human potential, which includes being a co-founder of the Esalen Institute, and prior works such as *Golf in the Kingdom* and *The Psychic Side of Sports*. Echoes of these appear in this monumental vade mecum and guide, which stir up, but ultimately clarify, so many connected pools of murky waters. It must have been quite difficult to think of an adequate title for a magnum opus such as this, and *The Future of the Mind* might have been equally appropriate and more reflective of its message.

Meetings and Items of Interest

July 2-5, International Back Pain Society—Back Pain: Current Concepts and Recent Advances, Budapest, Hungary, (44 81) 206.0426.

July 6-10, 13th Cape Cod Institute—Behavioral Medicine Applications. Contact Gilbert Levin, Ph.D., Albert Einstein College of Medicine, 1303 Belfer Bldg., Bronx, NY 10461, (212) 430-2307.

July 12-17, National Wellness Institute - 17th Annual National Wellness Conference: Health Promotion Six Dimensions of Wellness, U. of Wisconsin campus, Stevens Point, WI (715) 346-2172.

July 13-17, 13th Cape Cod Institute—Psychopharmacology Update. Contact Gilbert Levin, Ph.D., Albert Einstein College of Medicine, 1303 Belfer Bldg., Bronx, NY 10461, (212) 430-2307.

July 13-17, 13th Cape Cod Institute—Multiple Family Group Therapy for Abuse. Contact Gilbert Levin, Ph.D., Albert Einstein College of Medicine, 1303 Belfer Bldg., Bronx, NY 10461, (212) 430-2307.

July 14-17, Vrije U. Dept. of Medical Psychology-International Council of Psychologists, Okura Hotel, Amsterdam, Netherlands (3120) 5487212.

July 18-22, Employee Assistance Society of North America-4th Annual Institute: Building a Healthier Workplace, Ottawa, Ont. (313) 545-3888.

July 24, Harvard Medical School, Dept. of CE-Neuroscience Update, Copley Plaza, Boston, MA (617) 432-1525.

July 27-31, 13th Cape Cod Institute-Psychotherapy and Spirituality 3. contact Gilbert Levin Ph.D., Albert Einstein College of Medicine, 1303 Belfer Bldg., Bronx, NY 10461 (212) 430-2307.

July 27-31, Massachusetts Mental Health Center; Harvard Medical School-Essential Psychopharmacology: The Art, Science and Practice, Seacrest Resort, Old Silver Beach, Cape Cod, MA (617) 734-1300 x469.

Aug 8-11, University of California, San Diego School of Medicine, Office of CME-The Power of the Art: Introduction to Medical Hypnosis, San Diego Hilton Beach & Tennis Resort (619) 481-9537.

Aug 16-19, American Psychological Association, Washington, D.C. (202) 955-7705.

Aug. 17-21, Hans Selye Symposia on Neuroimmunology and Stress Advances in Psychoneuroimmunology, Satellite Meeting of the 8th International Congress, Budapest, Hungary. In North America (204) 788-6320, In Europe 36-1-185-2255.

Aug. 22-27, International Association for the Study of Pain-7th World Congress on Pain: All Aspects of Acute and Chronic Pain, including Cancer Pain, Paris, France (206) 547-6409.

Sept. 1-5, 4th International Conference on Stress Management-Stress in Contemporary Living, Pierre et Marie Curie U., Paris, France. Contact: ISMA, 14 Cranleigh Ave., Rottingdean, BN2 7GTT.

Sept. 11-12, 1992 Psychosocial Oncology-Enhancing Patient and Family Care, The Beverly Hilton, Beverly Hills, CA (310) 855-5486.

Oct. 22-25, Society for Professional Well-Being National Conference - The Personal Basis of Care for Others, at the Hyatt at Fisherman's Wharf, San Francisco, CA. Contact: Marjorie Harrison 1-800-473-5880.

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