

SATSANG

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Perform Agnihotra • Heal The Atmosphere

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**Plant Puzzles
Biofeedback And Homeostasis
From Vasant's Correspondence
Negative Ions**

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Cover

Working with Biofeedback and Homa Therapy.

Plant Puzzles

I am only an enthusiastic beginner at Agnihotra but I see the pieces of puzzles that had long bothered me beginning to fit into place. One answer came to me following a conversation with Vasant.

For 12 years, until last year, I was very active with a national plant organization. Hundreds of amateur and professional flower hybridizers in the group introduced new varieties each year, vying for awards and financial success. There are excellent scientists among the thousands of members and there is constant controversy about hybridizing, fertilizing and related horticultural aspects.

As more highly bred flowers were developed, more problems seemed inherent. Some attributed these to breeders aiming for flashier, commercially successful flowers at the cost of hardiness in the plant.

The popular flower varieties seemed more vulnerable to traditional insect pests and diseases. New pests and diseases were appearing too, and attracting the notice of scientists. Many advocated that popular variety lines should be crossed back to the vigorous varieties that were popular two or three decades before.

At first, it seemed to make sense. Many growers remembered how well the older hy-

brids had grown, how quickly they had multiplied and how they seemed to resist pests and diseases. Some conscientious hybridizers began to try breeding back to the older forms.

I am not a scientist but I did not see any improvement in these. In fact, they didn't grow as well as some of the new introductions from hybridizers who rejected the "return to the tried and true" theory.

My own garden several years ago had contained both popular recent introductions and some termed "antiques" ranging from the turn of the century through forms from the 1950s. Ironically, the "antiques" had more pest problems than the more modern flower varieties. The newer forms were larger, broader leafed plants with stronger root systems, a coincidental development as hybridizers had worked for bigger, flashier flowers that would appeal to the buying public.

The sentiment that the older varieties had been stronger was based on memories of the "good old days." Yes, they probably were stronger then. Everything grew better 30 years ago. Today, the same older flower varieties were having a terrible time competing with adverse conditions.

It wasn't the development of flowers that had gone down. The trouble was with the growing condition. Air pollution, soil pollution, acid rain, increase of pests and a broadening range of diseases are the truths of today.

A return to the plants of the old days will not bring back the growing conditions of the old days. Just as an earlier Satsang noted the problems of trees in Germany one can see problems developing here. The world is changing disastrously.

No matter what direction flower or vegetable hybridizers take, the resultant plants cannot survive without good growing conditions. I have read of the return to older varieties of corn and other food plants. People know there are growing problems and they are taking the wrong route to cope with them.

Don't they remember the widespread chemical warfare against insects in recent years? This has tapered off, but the damage is done. Resistant insects evolved with the natural law of survival of the fittest. Plants have not had such opportunity. Many are hybridized by plant specialists with a commercial goal and not by the wisdom of natural selection.

While man's greed leads him to strive for stronger and more valuable plants, he neglects to consider improving the deteriorating growing conditions with which the new plants must battle.

Plants are basic to man's existence in a wide range of ways. Plants are in trouble. Humankind must realize that Agnihotra and new life patterns are the solution. The only solution.



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Biofeedback And Homeostasis

All learning is the result of some type of feedback from the body. Biofeedback integrates the psychological, emotional and physical skills in conjunction with natural laws. Biofeedback techniques teach us to treat a wide variety of psychosomatic and stress related disorders. It also helps us towards self-development, relaxation, self-help and enhancement of creativity as well as improving our energy flow.

Biofeedback literally means the measurement of internal biological activities such as brain waves (Electro-Encephalogram – EEG) heart rate, muscle tension (Electro-Myograph – EMG) Galvanic Skin Response (change in skin resistance – GSR) temperature and others.

Every change in the physiological state is accompanied by an appropriate change in the mental-emotional state, conscious or unconscious, and vice versa. Application of this principle, accompanied by our passive will (volition) is an effective way of permitting our innate natural intelligence to restore health and to enhance the quantity as well as quality of our consciousness. The work of Elmer Green at Menninger Foundation with the help of some highly gifted though unknown Indian mystics was well documented a decade or so ago.

Galvanic Skin Response – GSR, the backbone of Biofeedback, has been used for over fifty years and measures mental, emotional and physiological activity. It records the rise and/or fall of skin resistance and reflects the activity of the sweat glands. The Plethysmograph which measures blood flow in the capillary system of the skin is another way of measuring stress arousal. I used a newly developed Plethysmograph at Syracuse Uni-

versity in the late fifties which was developed by General Electric and was used in conjunction with intravenous Pentothal (Truth Serum) and “one way mirror” in homicide cases with astounding success.

Sweat glands are controlled by that part of the autonomous nervous system called the Sympathetic Nervous System (the other is the parasympathetic nervous system). When a person is frightened or disturbed or excited his sympathetic nervous system is activated (fight or flight mechanism). GSR was used for several years as the basis of the polygraph test (Lie detector test). As a result of Biofeedback Training, we have succeeded in controlling our autonomic nervous system thus making the polygraph test less dependable.

In the “Fight or Flight” mechanism, we have an increase in heart rate, increased blood flow to the skin, release of adrenalin and dilatation (widening) of the pupils of the eye, which are all effects produced by stress, as recorded by the GSR. Unconscious activity can be made conscious and when a person's sensitivity to internal signals is increased, then he is already consciously relaxing. By measuring combinations of EMG, GSR, temperature and EEG, we demonstrate an integration of voluntary system (muscles) sympathetic/parasympathetic (involuntary) nervous system and central nervous system (brain, spinal cord and peripheral blood vessels).

Homeostasis (balance) is a good biological example of various feedback control systems whereas the thermostat is a good mechanical example of temperature regulation as needed. Common body functions such as pulse rate, blood pressure, endocrine gland activity, muscle activity, blood chemistry levels (such as

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lactate), temperature, digestion, etc. can also be controlled to some degree and affect body balance.

The sympathetic nervous system is responsible for self-arousal in fight or flight reaction: adrenalin and glucose are released into the bloodstream, pupils dilate, heart rate increases, surface capillaries contract, more blood goes to the skeletal muscles, digestion is slowed, respiration increases, i.e. it allows a maximum amount of energy in the shortest amount of time to cope with the emergency.

Conversely, the parasympathetic nervous system, on the other hand is designed to conserve and store energy – which are reversals of the above functions. It is responsible for resting, recuperating and energizing the body.

As the sympathetic system becomes active, the amount of sweat on the skin also increases. The skin resistance is lowered and is reflected by a rising tone and movement of the needle on the GSR unit. In reverse, as parasympathetic activity increases, the skin resistance increases and tone as well as needle drops. The GSR measures the ongoing fluctuation between tension and relaxation, stress and rest, anxiety and calmness.

Stress simply means change. There is healthy stress and unhealthy stress. The physical/emotional system of the untrained, unaware individual responds to all change with the unhealthy "fight or flight" stress response. This, of course, results in excessive anxiety, tension, fatigue, inefficiency and physical disorders. This causes permanent changes in behaviour and metabolism. It increases our susceptibility to infection and illness and causes the breakdown of our physical and psychological defenses.

Stress reactions may cause recognizable and often irreversible tissue changes – as in asthma, hypertension, peptic ulcer, colitis, arthritis and even schizophrenia. We know that ulcers, high blood pressure and heart attacks are common amongst type A personality individuals under extreme pressure. However, it must be emphasized that excessive stress is not necessarily the result of environment or activities but rather is caused by our maladjustment or poor adaptation to our environment and life situations.

It must be stressed that even when we may not particularly feel any threat or pressure – our autonomic nervous system acts as if it were in danger as it has throughout the history of mankind which has been fraught with danger and constant preparedness on our part. The progression from relaxation to deep relaxation to meditation is beneficial for both mind and body and one is better able to cope with life as a result of improved learning and efficiency.

The effect of stress is to provide a window to view the autonomic nervous system. As it changes, so does the entire body. Muscle activity can be altered as in cases of extreme tension and fatigue. Learning temperature control allows us to eliminate migraine headaches by altering blood flow from the head to the hands. The EEG pattern can be altered as in Epilepsy and other neurological disorders. Change in EEG waves can induce a degree of relaxation which improves the quality and speed of learning, sleep and intellectual/emotional/spiritual pursuits while exploring our subconscious state.

The physiological state can be controlled by first becoming aware of the psychological

state. This can be accomplished through self-observation of visual and auditory responses – “feedback” from the body.

Biofeedback, using ingenious electronic instrumentation can help a person reduce both the mental and physical effects of unhealthy stress thus restoring homeostasis (balance and harmony). Our cultural orientation has incorrectly convinced us in the western world that most of the subtle and important processes influencing psychological, emotional and physical health are beyond our control.

It has been established unequivocally that the majority of medical disorders are psychosomatic or stress related. By bridging the gap between the conscious and normally unconscious activities of the body, an individual develops a new understanding and increased control over his internal states.

Relaxation science has become a new specialty using holistic concepts which in addition to Biofeedback include nutrition, physical exercise, psychological/emotional patterns, creativity, mental imagery, proper breathing and such.

EMG feedback is a powerful method for bringing about deep relaxation, bearing in mind that the majority of the body mass is skeletal muscle.

The pressures of modern life make it practically impossible for a person to learn to thrive on stress except with specific knowledge and skillful application of several physiological and psychological principles.

Homeostasis means balance and it counteracts the excessive fight or flight response as happens often and controls heartbeat, breathing, muscle contractions, blood flow

and glandular secretions. Fight or flight response is based on fear whereas healthy balance and arousal is based on homeostasis which enhances fun, excitement, challenges, increased sensual perception and more aliveness. Stress management has become very important for our business world and the professions.

Biofeedback principles have been successfully applied in sports using self-training, motivation and correct assessment of our performance and plan for self-improvement. Proper breathing and breath control under competitive pressure is the key to excellence in sports, where Biofeedback training is very effective.

Biofeedback has also been successfully applied in education. Self-knowledge is the key to learning to thrive on stress. Biofeedback with proper instruction enhances our self-knowledge and development of our human potential. Mind body principle establishes that our muscles are affected by what one is thinking, especially the small subtle muscles of facial expression.

Stress is not necessarily harmful – it may serve as a stimulant, can be healthy and allows better performance. Good stress has been referred to as Eustress compared to bad stress which is fight or flight response typical of the animal kingdom as an automatic and mechanical response to change, which implies possible danger.

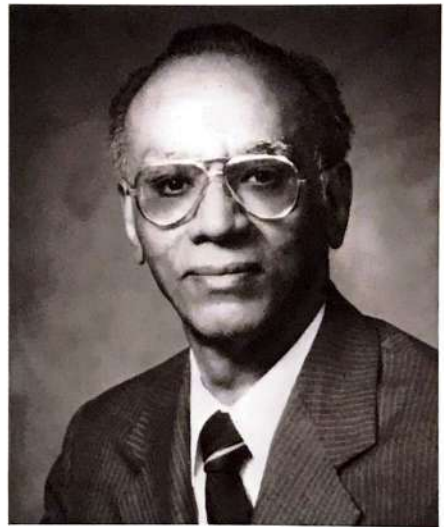
Biofeedback is an integral part of Holistic medicine. It goes beyond normal healing to promote vigorous health. In addition to conventional medicine, nutrition, exercise, proper thinking and attitude are responsible for our health.

Homeostasis implies that heart, muscles, glands, brain and other parts of our body are in harmony and functioning in unison. One can achieve both relaxation as well as arousal in homeostasis as compared to unhealthy arousal as in fight or flight response and knowing the difference is essential in stress management.

Passive volition (will) brings about superior performance by allowing the body to perform rather than forcing the body to perform. Learning is much easier when done on a subconscious level of relaxation as proven in the "Lozanov Learning System," which provides a pleasant setting, music, absence of outside noise and congenial associates. Having created such a pleasant and relaxing environment, the instructor proceeds with planned training.

In summary, Biofeedback teaches us that we can acquire better control over our body, emotions, behaviour, habits and overall performance by first being aware of our actions and then learning to modify them as needed. One can subsequently discard the instruments and simply use his will.

[NOTE: Agnihotra pyramid fire strengthens the Homeostasis mechanism of the body. The word homeostasis literally indicates returning to a fixed state and, hence, some call this mechanism Homeokinesis (same action) or Homeorhesis (same flow). Agnihotra directly affects the thinking, feeling and willing aspects of the mind as it also beneficially affects the physiology. The self-governing mechanism of the body is activated to the optimum by practice of Homa Therapy of which Agnihotra is the basic Homa. – Editor]



From Vasant's Correspondence

We are living in a very difficult world. There is so much pressure and strain from every direction. Everyone is searching for cures for this and that. Let us not be shy. Go forward with Agnihotra.

So discipline, discipline, discipline. You will see great improvement in your mental clarity.

Prayer, meditation. Prayer, meditation. Prayer, meditation. This brings one to humility. Humility brings one to the Master. If one is not humble there will always be something coming in way of his vision. He will never really see what greatness lies before him until that humility dawns. Then all veils disappear and the devotee is face to face with the Master. Whosoever be the Master he will find this to be true. Humility is the most important point a person has to reach.

Humility does not mean thinking lower of yourself. This is misinterpretation. Perhaps it is better to say "thinking less of oneself and more of others" but not thinking lesser of oneself. Just less thinking of one's own desires, one's own opinions and attitudes. Surrender to His will comes simultaneously with humility. You should always think, "How best I can serve other people. What can I give of myself in service to another person?"

Service and devotion. Service reflects devotion. One can say, "Oh, I am so devoted," but service is more than lip service.

Force will only negate what one is attempting to do. Never force your will on another human being. It is a severe mistake when that is done. Then we carry the burden, the Karma for that action.

Rules are rules and meant to abide by. We should not enforce rules but rather offer them as a pattern by which to live. Show the benefits of such things as discipline, meditation, etc. Be firm but not harsh. Never be harsh. It is much better to be kind and still be disciplined. This you must keep in mind.

Suffering in whole world is so severe now. People do not know what is yet to come. One must never be greedy or selfish when given such Grace.

Yajnya (Homa) acts as a catalyst if someone consciously tries to get away from drug habit.

Marital troubles are always there no matter what the marriage is. Even between two very good people marital problems exist. So we have to work around that. Now if two people practice disciplines together this will benefit the marriage ultimately.

Negative Ions

"Air, then, is not a thin, nonexistent substance. Not only is it thick and heavy, but *air is the substance which supports life*. To stay alive, we breathe about 2,500 gallons, or 10,000 liters of air each day. But we have reduced our air into a parody of what nature originally provided and intended us to breathe. Pollution strips out of the atmosphere a component vital to life and health: the air ion."

"Nature has many ways of creating these negative ions to charge the air. Trees and plants, ultraviolet light from the sun, radioactive elements in the soil, the friction of waterfalls and the interaction of the ocean surf with the air, all fill the air with negative ions."

| Nature's Ion Generators | Ions per cubic centimeter |
|--------------------------------|----------------------------------|
| Lightning | 100,000,000 |
| Fire | 100,000 |
| Waterfalls | 25,000 |
| Caves | 10,000 |
| Ocean surf | 5,000 |
| Mountain forest | 4,000 |

| | Negative Ion Count Per C.C. In Common Situations |
|---|---|
| Country | 1,000 - 2,000 |
| Airplane Interior | 0 - 500 |
| Home or Office (without smoking, air conditioning, heating) | 250 - 500 |
| Home or Office (with smoking, or air conditioning or heating) | 0 - 200 |

(Courtesy: *You Are What You Breathe: The Negative Ion Story*, by Robert Massy, Ph.D., University of the Trees Press.)

[It would be interesting to research the additional inputs and transmutations that take place when Agnihotra copper pyramid fire is lit to the very special atmospheric conditions of sunrise/sunset. People working with Radiesthesia tools in Europe have observed tremendous increase in negative ions - Editor].

