

THE POWER OF THE PARASYMPATHETIC NERVOUS SYSTEM

By Robin Sands (Stress News October 2002 Vol.14 No.4)

The most important point to remember about stress is that it is literally a nervous reaction. It occurs within the Autonomic Nervous System (ANS). The ANS is a vast network of nerves branching out from the spinal cord, reaching and directly affecting every organ in the body. It is responsible for maintaining the equilibrium of our internal environment. In fact, it is responsible for anything and everything that we experience automatically. The sexual urge, as well as the pleasure of its gratification, is manufactured within the ANS. The surge of determination, or dread, when faced with a threatening situation comes from the ANS, as well as the feeling of peaceful contentment that some people are fortunate enough to experience. If you feel it, you feel it with the ANS. All instinctual reactions, such as hunger and sleep, have their home here. Anything commonly called human is likely to have its roots in the ANS. Anything that is universally felt, or known, comes from this place. But, as we are about to see, the ANS is a double-edged sword.

The ANS divides into two distinct systems: the 'Sympathetic' Nervous System and the 'Parasympathetic' Nervous System. To put their functions simply, read 'stressed-out' and 'chilled-out' respectively. Often, nerve fibres from these two systems supply the same organ, one stimulating and the other sedating. They tend to be mutually exclusive since one system is concerned with the mobilization of forces to meet an emergency (the famous 'fight or flight' response) while the other is to do with the relaxed, regenerative states.

Thus, in a healthy organism we have these two branches of the ANS maintaining a Yin-and-Yang-type balance. The Sympathetic Nervous System allows us to deal with stressful situations. Whenever we perceive danger it will tense our musculature, constrict our blood vessels and speed up our thinking process, amongst numerous other activities. Then, after the danger has passed, the Parasympathetic Nervous System will take over, decreasing heartbeat, relaxing blood vessels and clearing away metabolic waste products such as adrenaline and lactic acid. This is how it should happen: action followed by relaxation; the tide of life ebbing and flowing, expanding and contracting within the ANS.

Health and vitality are the natural result of the harmonic interchange between the Sympathetic and the Parasympathetic. Unfortunately, in our world this tends to be the exception rather than the rule. In this culture, with all its inherent struggles and strains, people's Sympathetic systems very often stay turned on and standing guard, unable to give in to the softer, more gentle flows of the Parasympathetic. And if this condition becomes chronic, it can lead to a whole variety of stress-related symptoms and, later, illnesses.

The ANS becomes disturbed and out-of-balance whenever the instinctual response to any situation is denied, be it ignoring our tiredness or overriding our rage. The word instinctual implies something that is automatic, even unconscious. Often we do not have time to work it out, and sometimes it defies analysis. It is simply the way in which we have reacted to this situation. The way we feel is part of our nature, and we can do ourselves a great disservice by riding roughshod over it too often. We need to remember that we are more than just a conscious choice. We all have a depth of feeling, individual needs, tolerances and preferences. We have the ability for gut

feelings as well as analysis. We have a heart as well as a head. For there to be true health there must be a healthy respect for both.

A vivid example of a healthy nervous system can be seen in a cat when it comes face to face with a dog. Immediately the Sympathetic goes on red alert. The whole of its body is mobilized in a fraction of a second. Its fur stands on end, it spreads and straightens its legs, it hisses violently and holds the impulse to scratch the dog's eyes out until just the right moment. If the dog has enough sense, it sees the futility of a fight and trots off. With amazing speed the cat then finds somewhere to stretch out and starts licking its fur. The Parasympathetic is now taking over.

For many people the business world is something of a war zone. A place where dogs eat dogs, and sharks rule the waves. A competitive environment where only the (financially) fittest survive. This is the jungle that we find ourselves in, trying to sidestep the booby traps and dodge the arrows of misfortune. It is not as powerful a stimulant as war, but in the long run it is equally dangerous. There are an abundance of workers/business people who can never really afford to let their guard down, who never really have the time or ability to relax. They have their indigestions, their bad backs, their heart conditions, but 'when needs must, the devil drives' they tell themselves. Sadly, it is not so much the devil as their own over-active Sympathetic Nervous System that is driving them straight down the fast lane to an early grave. As we have moved into a 24/7 news cycle and social media availability, these stresses and strains are increasingly affecting everyone who uses a smart phone with internet access. They do not see in their own tics, sleepless nights, stomach knots, palpitations and cold sweating a call to slow down, to take it easy. In their high-flying and sophisticated ways they do not see the simple truth that for a person to function well he/she must rest well. They do not seem to realise that health requires balance, harmony and equilibrium between body and mind.

The inner life of the body cannot be controlled, it can only be encouraged. If you continually try and make your body do what it doesn't want to do, it will rebel like a slave-uprising. Many people believe, for example, that the common cold is Nature's (or the ANS's) way of slowing us down and releasing accumulated toxins. This would certainly explain why many people feel better than ever after recovering from an illness.

When people are ruled by their Sympathetic Nervous Systems life slowly becomes more and more uncomfortable. It is imperceptible at first because all they are aware of is the hardship and the oppressive situation, or the thrill and the adrenaline rush. Over time, if the Sympathetic has the perpetual upper hand, it will slowly become more and more difficult to relax and give in to the Parasympathetic. Once caught in this vicious circle, sleep and appetite become affected. Alcohol and other kinds of suppressants may be sought in a vain attempt to give the sufferer an imitation of what their own Parasympathetic is waiting to give them. Later on, backache may appear, or migraine, repetitive strain injury or peptic ulcer. The list goes on and on, and does not include the different types of mental illness that can result from this unfortunate situation.

To the extent that the Sympathetic is dominant, life will seem to lose its expansive quality. Things will feel tighter, harder, more constricted. Alternatively, life may feel dangerously dramatic, explosive, despairing. Either way the various anxiety states will be felt all too keenly. These can be experienced as numbness, palpitations, stomach knots or less easily definable but equally unpleasant sensations. These are all signs that the switch to the Sympathetic Nervous System has got stuck. If stress/negative

feelings are continually layered on top of this block, emotional and digestive disorders can develop. The ANS is out of balance, and therefore is in a weakened state. It no longer has the ability to do its job properly. A crowbar has been jammed between the cogs of its engine. Toxins are not being cleared away, internal combustion has been affected and pressure is building up. No wonder stress can make us have fantasies about escape either literally or into addictions, and even to suicidal feelings. This is no different to thinking about lifeboats when on a sinking ship.

If we continue to hold on after the Sympathetic has been activated, and after the danger or pressure event has passed, the Parasympathetic will be unable to take control and restore peace of mind and well-being. This, regrettably, is the norm. We humans are not blessed with the simple life of cats. It is quite common for us to lay awake at night in a silent Sympathetic frenzy of negative thought, worrying about money or the state of our relationship.

If, for whatever reason, the Parasympathetic is unable to take over, slowly there becomes a build-up of toxins and stress by-products trapped within the system. The muscles become ever more tense and contracted. This not only happens to the six hundred and twenty skeletal muscles, but also to the smooth musculature that can be found throughout the vast network of tubes within the body systems. The blood vessels as well as the intestines all go into a state of contraction when the Sympathetic is in control. If, however, the Parasympathetic is able to take over, the gateway to another world of relaxation and contentment is opened up.

Let's travel gently into the realms of the Parasympathetic: the home of all relaxing, warm and contented feelings. If the Sympathetic is what we need to actively be in the world, then the Parasympathetic is what we need to be in Heaven. When the Parasympathetic is in control it immediately begins to manufacture a sense of well-being. It brings peace where there was conflict. Like Mother Nature nourishing Her offspring, the Parasympathetic does everything in its power to restore harmony and equilibrium. As it relaxes muscles, blood vessels and internal organs, so the flow of all body fluids becomes easier, smoother, fuller. The intestines expand and the peristalsis (those gurgles of digestion) begins to process the waste products that the Sympathetic has created. It slows the heartbeat and deepens and softens breathing. It calms and changes the brain's waves and patterns, bringing the quieter, more expansive states of mind that are so conducive to imagination and creative thinking. Slowly, under the right conditions, the Parasympathetic ensures that everything falls or clicks back into place. Everywhere that has been overstretched is enabled to fall gently back into line. Everything that has been contracted, begins to expand. And this expansion is experienced as pleasure. A really good night's sleep is a perfect example. As unusual as it might be for most of us, waking up feeling refreshed from a thoroughly pleasant night's sleep is solely the work of the Parasympathetic.

We move into the Parasympathetic when we have relinquished control, and when the Sympathetic has finished its job, i.e., when we have expended all that energy by fighting or by running as fast as our legs will carry us. When we have used up some of the energy, and we are not too stressed-out or feeling too negative, the Parasympathetic will do its job while we are watching TV or sleeping.

If you imagine the ANS as an ocean, then the Sympathetic would be the surface waves, the tides, the storms; while the Parasympathetic would be the ocean's depths, its stillness, its abundance. It is always the power of the Parasympathetic that restores calm to the surface, harmony to the mad ups-and-downs of life. And it is

imperative for our survival, let alone our happiness, that we learn to awaken and develop this great healer within.

The holistic therapies aim at strengthening the Parasympathetic. There is an army of professional people out there whose purpose is to awaken this all-too-often dormant part of us. The Cranio-sacral Therapist, with great sensitivity, works directly at unwinding the deep tensions that keep the ANS out-of-balance. The Homeopath, with her potent little pills, also seeks to restore harmony within the ANS. If there is an emotional block, the Holistic Psychotherapist works at identifying and resolving the buried conflict within the ANS. The Biodynamic Massage Therapist, with great flexibility, uses whatever technique is appropriate to harmonize the ANS. Acupuncture, Shiatsu and most forms of quality massage also have similar effects on the Autonomic Nervous System.

It is this same system that yogis seek to purify and manipulate. Pranayama, a higher branch of Hatha Yoga, is a good example. It has as its goal union with God through breath control. Using highly sophisticated techniques and incredible discipline, devotees work toward strengthening and developing their Parasympathetics to such an extraordinary degree that all the systems and senses of the body become saturated with vitality and well-being. The true potential of the brain is thus harnessed, and consciousness takes several leaps beyond our imagination.

Of course, most of us aren't ready for such spiritual acrobatics. We just want to feel happier and more relaxed; less easily wound-up, less given to worry and more optimistically inclined. Most of us would like to trust in the process of life a little more. Mindfulness, a form of relaxation, is the less demanding and perfect way to assist the Parasympathetic to do its job whenever we are struggling to 'turn-off' from the accumulation of Sympathetic stress/negative.

In fact, most of us are looking for a way to relax and be happy, without giving up any of our pleasures and without putting too much effort into it. Fortunately, this is the optimum way to proceed. The Parasympathetic does not respond to denial, or to efforting. Like an abused child cowering under the bed, it needs to be coaxed out of its hiding place. It needs soft words and gentle assurances; a little bit at a time so it is not overwhelmed. It requires the most patient determination. Whatever New Age claims you may have heard, it is only through the regular and consistent practice of relaxation (or Mindfulness) that the Parasympathetic can be brought back to its former glory.

As a culture we have systematically trained ourselves to override the ANS, our instinctual life, in favour of a faster, more "convenient" lifestyle. Unlike the bristling, hissing cat, not many of us give full vent to the Sympathetic. As a race, we tend to be a little frightened of our instinctual reactions. We do not enjoy our heart racing, our hair standing on end, our legs trembling, and so we tend to tense against such disturbing sensations. This often makes us feel in control, and gives the illusion of security. But we are cutting off our nose to spite our face. If the ANS is inhibited, it will inevitably get stuck in its mode of active operation. This does not imply that we should become like animals or small children. It simply means that, in the interest of our health on all levels, we should respect our feelings.

Our conscious mind, or head, should be able to overrule the ANS, or heart, because it is not always wise to do exactly what we feel like doing. And this process works fine, so long as the control exerted is relaxed after the stressful/pressure situation has passed. The problem comes when this does not occur. When we continue to hold on

and to disallow the ANS its natural functioning, stress is the not-so-natural result. When the Sympathetic is activated it produces a lot of energy which is designed either for fighting the threat i.e., standing up for ourselves, or for running away from it. It is an animal or instinctual response, and it doesn't matter how rational or intellectual we become, we cannot change the reality of this fact.

Yet how can the natural desire to sleep be honoured when we have to work all the hours God sent and then spend half the night up with the kids? How can we surrender to our bowel movements when there is a long queue in front of the toilet? How can we express the anger and irritation we feel toward our boss when we know it will be cutting off the hand that feeds us? We cannot, and we are not supposed to. Our will power is there for just such emergencies. The healthy use of it is called 'deferred gratification'. It allows us to hold on to the impulse until we find an appropriate place to express it.

It is a gift to have the ability to control the life that is flowing through us. Stress is the abuse of this gift.

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