

The Hypnogenic Gesture: Voluntary Control of Sleep

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The major theme of the Sounder Sleep System is the quest for the *hypnogenic gesture*. What is the hypnogenic gesture?

The word hypnogenic comes from the Greek words *hypnos*, meaning sleep, and *genic*, meaning engendering, or giving rise to. A gesture of course is a movement of the body or limbs.

So a hypnogenic gesture would be some physical movement or sequence of movements of the body or limbs that, in the absence countervailing stimuli, tend to engender sleep. If there were such a thing, and if we could find out what it was, it would be of tremendous value, because it would allow us to employ our own voluntary movements to control, at least indirectly, the involuntary function of falling sleep. Instead of just lying there, helplessly waiting for sleep to come, we could do something to bring it on.

I have good news for you. We have found the hypnogenic gesture, and we can teach it to you in a brief educational program. The other news I bring, which is also good, though slightly more complex and challenging, is that the hypnogenic gesture is different at different times for different people. For that reason, learning it will require of you a bit of engagement, a bit of curiosity and creativity on your part. If

you are curious about yourself and if you enjoy creative endeavors, you can easily learn the hypnogenic gesture and use it to meet your own needs for natural, restful sleep. How does that sound?

Now, this concept of the hypnogenic gesture is not so esoteric a concept as it might seem at first hearing. In fact, every one of us is quite familiar with at least one natural, universal hypnogenic gesture. That is, we simply 1) lie down in any comfortable position and 2) close our eyes. For the majority of human beings on any given night, that simple, voluntary action will suffice to create the internal physical and mental conditions necessary for sleep.

While this quintessential hypnogenic gesture may seem trivial, the physiological mechanisms it engages are not. Sleep is a hypo-metabolic state. In order to fall asleep, there must be a general decline in metabolic activity. Physiological and psychological arousal is reduced, with potent effects on wakefulness and vigilance. The act of lying down and ceasing to move inaugurates this hypometabolic state. The cessation of the activity of the postural muscles signals the brain that its predictive, orienting, and activating functions are not required for the time being. As a result, we see reduced oxygen consumption, blood pressure and heart rate, and a decline of core body temperature as compared to sitting or standing.

Closing our eyes has additional hypometabolic effects. It

blocks out light and visual stimuli, thereby eliminating a potent environmental source of arousal; suppresses the orienting function of the eyes; and produces a nearly instantaneous slowing of cerebral processing--all essential steps toward the onset of sleep.

Yet, powerful as it is, simply lying down and closing our eyes isn't always sufficient to induce sleep, particularly when we are under stress, and more particularly when we are under unremitting stress such as is increasingly common for citizens of this hurried, worried, and harried modern world we live in.

Stress, wherever it is present, produces heightened arousal--that is, heightened activation of our mental and physical faculties. And unremitting stress produces excessive, unremitting arousal, or "hyperarousal."

All healthy human and animal behavior involves alternating cycles of action and repose: we do something, and then we pause to rest. But when we are hyperaroused, that natural, alternating cycle of action and repose is disturbed; we exist in a state of continuous mental and physical activation.

Sleep, as we have seen, is a hypometabolic state. Restful sleep requires a general reduction of metabolic activity, the deactivation or quiescence of our mental and physical faculties and the descent into a generalized state of repose. Hyperarousal and sleep, therefore, are antagonistic states. We cannot maintain a state of incessant, unrelieved arousal all day long,

and then expect to turn it off instantly at bedtime. The body just doesn't work that way! Rather, the stress we endure during waking hours persists through bedtime and beyond, delaying sleep onset, causing shallow, fragmented sleep, or both. This is the well accepted mechanism by which stress causes insomnia.

Under those circumstances our universal hypnogenic gesture, simply lying down and closing our eyes, isn't enough to allow us to sleep. We must devise, if possible, other, more potent sleep-inducing gestures. That is the *raison d'être* of the Sounder Sleep System.

To that end we employ three related types of practices that work together synergistically. Here are the three functional components of the Sounder Sleep System:

- 1) Guided Natural Breathing™
- 2) Daytime Relaxation practices, or DayTamers™
- 3) Night-time sleep-induction techniques, or Mini-Moves™.

Guided Natural Breathing, or GNB for short, is the first functional component of the Sounder Sleep System. It is designed to restore the natural rhythm, pattern, and pleasure of the breath, which for most people has been lost as a result of the stress of life. These gentle, non-invasive, breath-awareness practices will provide a foundation upon which all the other elements of the system are built. Whenever you do any Sounder Sleep technique, you always breathe naturally, as in Guided

Natural Breathing. It's easy, it's pleasurable, and, as the name implies, it's all "natural." With regular practice, you'll find yourself doing GNB spontaneously. You won't even have to think about it.

Daytime relaxation practices, or DayTamers, are the second functional component of the Sounder Sleep System. They are designed to actively offset the incessant stress of living in a man-made world and to combat the hyperarousal that, as we have seen, can delay the onset of sleep and make sleep shallow and fragmented. In other words, they make your life more peaceful. And when your life is more peaceful, your sleep is more peaceful.

In fact, I can just about guarantee that if you practice diligently--let's say three times a day for ten minutes each time--after three weeks of that you are going to see a major change in the quality of your life. Your life will become more peaceful and as a result you'll be happier, more creative, and more positive in all your endeavors. You'll even look better! At the same time, those DayTamers are the very best thing you can do to make your nighttime sleep deeper and more restful. By curbing hyperarousal during the daytime, you are setting the scene for easier, more restful sleep at night.

Sleep-inducing **Mini-Moves™** are the third functional component of the Sounder Sleep System. They are special movement practices designed to be done while lying down on your back, on your side,

or on your belly, right in your own bed. The **Mini-Moves** help you fall asleep, and if you awaken during the night, they help you get back to sleep with ease. They are small, modest movements of the hands, eyes, lips, tongue, or trunk that can be performed either in actuality or simply imagined whenever you wish to initiate the process of falling asleep. Combined with regular daily practice the DayTamers, the **Mini-Moves** make natural, restful sleep a reality for just about anyone.

What is the mechanism of these mysterious sleep-inducing movements? How do they work their Sand Man-like magic? I could happily speak on that subject for an hour or more, but that would take us well beyond the scope of these brief introductory remarks. For now, let me say that my studies in the neurophysiology of sleep, movement, and mind have taught me that our every action generates in the nervous system both excitatory impulses that impel and empower movement, and inhibitory impulses that constrain, regulate, and orient movement. (Perhaps the most familiar embodiment of this principle is the phenomenon of reciprocal inhibition as discovered by C. S. Sherrington in the late nineteenth century, but there are many other mechanisms of this type, some only recently identified.)

It is the ever-shifting balance of excitation and inhibition that give our voluntary movements their organized, coordinated, purposive quality. And it seems that, for a variety of reasons, small, slow, repetitive, rhythmic movements exhibit a more pronounced inhibitory effect that under certain conditions can

propagate to many areas of the brain and produce a generalized inhibitory state of the organism, in other words, sleep.

The inhibitory effect of movement was known and valued in antiquity by adepts of Hindu and Buddhist yoga and meditation; Taoist movement arts like taiji and qigong; Islamic, and especially Sufi, mystical rites; and in certain Judeo-Christian devotional practices. In the West its discovery was foreshadowed by Kirchner's *experimentum mirabile* of 1646, in which a dove turned on its back with its head pressed to the table entered a semi-rigid, trance-like state for several minutes or more. The existence and character of inhibitory reflexes were later revealed by Pavlov--a ground-breaking sleep researcher in his own right--and by his contemporaries Sherrington, Magnus, and de Kleijn. Their discoveries gave insight and inspiration to the pioneering figures of somatic education: Schultz (autogenic training), Jacobsen (progressive muscle relaxation), Elsa Gindler, Alexander, and Feldenkrais.

Those who know what to look for and how to interpret what they find will find support in the contemporary research in movement physiology as well, including studies of such wide-ranging phenomena as event-related synchronization, surround inhibition, inter-hemispheric and intra-cortical inhibition, and so on. We have collected dozens of references, and they are available for anyone who wishes to explore this literature.

Just to cite one example, a recent study using Transcranial

Magnetic Stimulation (TMS) sought to discover whether there is a correlation between the recruitment of excitation and inhibition in the human motor cortex. TMS was applied above the hand area of the motor cortex at varying stimulus intensities. Response curves were then generated for the resulting motor evoked potentials (MEPs) measured in a corresponding hand muscle, an indicator of cortical excitation, and cortical silent periods (CSPs), an indicator of cortical inhibition. The researchers did find a correlation, but noted that inhibitory effects are recruited at lower stimulus intensities and saturate, that is, reach their highest possible value, earlier than excitation. That may be one reason why the very-low intensity movement stimuli provided by the **Mini-Moves** have such a powerful inhibitory effect.

So there you have it. That's a basic outline of the Sounder Sleep System, an overview of the tools you'll be using to discover the hypnogenic gesture for yourself. For the rest of the time we spend together, you'll be exploring those three functional components in practice, by means of your own bodily movements, your own senses, and your own experience. And not only will you learn the individual practices, but you will learn how to put them all together, and integrate them into your own daily and nightly life. As a result, you'll begin to get all the natural, restful sleep you need, when you need it, and, if you are here for professional training, you'll be able to teach others how to do the same. Let's get started!