

# PART I

## GENERAL THEORIES OF SOMATICS

I sat in my office, having just returned the prior evening from my first weekend of training as a future Hanna somatic educator. My classmates and I spent the previous four days absorbing lectures on somatics theory. Among the various tidbits I committed to memory were words of assurance offered by one of my instructors—that this somatics method works so well that even in the event that we plied our skills inexpertly we might still see dramatic improvement. Along with theory, our class was introduced during this inaugural weekend to the basic technique of “assisted pandiculation” (using gentle touch and pressure maneuvers to provide feedback to, and generate arousal at, the voluntary cortex as a means of addressing chronic muscle tension) though we were not schooled in pandicular application in the context of formal somatics protocols.

My phone rang. There, on the other end, was my first ever client, explaining how she’d had a stroke, and that her stroke-side hand had been bound up in a tight fist ever since. Could I help her?

“Can you come right over?” Thirty minutes later I was aghast as I peered out my window to observe two assistants lowering this woman from her car into a wheelchair, her stroke-damaged left side all a’twitch. *Was I in over my head?* We chatted for a short bit and I made it clear that I could make no promises regarding her condition. Then I undertook to apply my newly acquired skills in pandiculating her bound-up fist. Within five minutes, and for the first time since her stroke some three years earlier, her fist opened easily and completely, and the tears rolled down her face.

*Geesh, I thought, this stuff really works!*



# CHAPTER 1

## WHAT IS THE MYTH OF AGING?

“The great enemy of the truth is very often not the lie—deliberate, contrived, and dishonest—but the myth, persistent, persuasive, and unrealistic. Belief in myths allows the comfort of opinion without the discomfort of thought.”

~John F. Kennedy

### What is Aging?

Before we jump feet first into myth-busting, please note that the subtitle of this book refers to “the myth of aging,” and not “the aging myth,” or “aging is a myth.” Aging is *not* a myth. Aging is very real, and I don’t discount for a moment that aging, as such, is an inescapable fact of life. Yet there are certain popularly held misconceptions about aging; and I have set about herein to expose perhaps the most insidious myth of all—that as we get older we must also experience the decline of aging in preordained ways. First, though, I think some brief attention to what aging is—and is not—is in order.

It doesn’t take a brain scientist to know that aging means getting older. Aging is something that everybody can relate to because we all age, and because there are certain *de facto* truths surrounding the myth. Beyond the given—that aging does mean *getting older*—we actually may require the services of a brain scientist, and other scientists as well, to determine what it means to “age.” Many scientists (in many scientific fields) are not in clear agreement as to what, exactly, the aging process necessarily entails. One rea-

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son for this absence of consensus is that people age *differently*. Another reason is that not all parts of the body age at the same pace, or in the same way.

Perhaps the most important reason of all is that much of what is entailed with the aging process is subjective, meaning that to some degree at least, we are just as young or as old as we feel ourselves to be. Some people are old at fifty, while others are still young at seventy-five. Much of the pain and stiffness, as well as loss of ease and agility, that people experience as they get older is idiopathic, meaning it is due to an unspecified origin or cause. Finally, many of those learned minds committed to exploring the phenomenon of human aging do so through the tinted lens of their particular persuasion.

Brain scientists look for a neural basis to explain the markers of aging, geneticists for family histories and genetic dispositions. Biogerontologists and nutritionists may see chemical imbalance or too many free radicals stemming from diet, while sociologists explore for usefulness and social meaning. Microbiologists may presuppose a genetic clock as determined by a finite numbers of cell divisions.<sup>1</sup> Psychologists may be concerned with the effect on the mind, subjectively or objectively, of maturation in the context of growing older. All the while, your family doctor has you watching your cholesterol and blood pressure. What many of us already know firsthand, and without a doubt, are the ever-narrowing limits imposed on our bodies by the process of growing older. What all these scientists are supposed to have in common is that they take a scientific approach in which a full range of possibilities are explored prior to arriving at conclusions (at least in theory).

Stemming from my interest in somatic education, I have a vested interest in the neurophysiology of the aging brain, because so much of what happens with the body can be traced to the brain. In reading much of what has been written about the brain by leading figures in this field, I found myself struck frankly by the absence of information, or even perspectives, addressing in any substantive fashion the connections between aging brains and the neuromuscular aspects of aging bodies. We see ample attention paid to rare

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<sup>1</sup> Known as the Hayflick limit.

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but newsworthy degenerative “conditions” that occasionally garner attention in the media, and also to commonly recognized neuropathologies such as Alzheimer’s and Parkinson’s diseases, as well as traumatic events like strokes. Yet little of what I’ve read even ventured the possibility that there might be more than a casual connection between the physical decline associated with normal everyday aging and the willful brain, or that at least some of the physiological effects of aging might be subject to the brain’s voluntary review.

This book is primarily designed to teach you how to live in your body in the best and most sustainable way. One effect of learning to live in your body in the best way, with somatics, is the understanding that much of the neuromuscular decline normally attributed to aging can be mitigated. Notably, this benefit is applicable regardless of chronological age. Somatics is not just for older persons wishing to stave off the effects of aging. Somatics is for *anyone* who finds the prospect of enhanced neuromuscular intelligence, and the ability to more live freely in your body, as an appealing scenario.

### The Myth

Thomas Hanna, in a stroke of genius, nicknamed his core set of movement patterns *The Myth of Aging* series.<sup>2</sup> More than some offhand catch phrase, this label begs a bit of scrutiny as it underscores the very nature of Hanna’s Somatic Education. A myth is a belief or set of beliefs, often unproven or false, that has accrued around a person, an institution, or a phenomenon, and upon which other beliefs or values may be based. History, even to the present day, is rife with examples of broad-stroke social belief systems premised

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<sup>2</sup> In addition to the eight movement patterns comprising *The Myth of Aging* series, Thomas Hanna composed ten other sets of movement patterns, each containing a series of six–eight sequential lessons arranged according to body areas or bodily conditions. See Resources in Chapter 17 to learn more.

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solely on myth.<sup>3</sup> Thomas Hanna saw the currently held beliefs about aging, specifically our collective assumptions about certain of the “inevabilities” presumed to accompany the aging process, as just exactly that—a myth. In fact, our aging myth has roots dating all the way back to ancient Greece when the fabled Sphinx queried Oedipus thus, “What walks on four legs in the morning, two legs in the afternoon, and three legs in the evening?” The answer of course is man, as per the presumptive decline that necessarily accompanies the aging process, mandating the use of a cane in one’s later years.

The particular myth debunked by Hanna is this: As people grow older their bodies inevitably decline along a downward trajectory, usually from middle age onward. This decline is known to be inevitable because it happens to the great majority of people as they age and move steadily toward death. Because this decline happens to so many people, it is the norm. Because it is the norm, it is “normal.” Therefore, this decline is what each of us must necessarily expect our own future to hold.

Herein we have the myth upon which society’s expectations are based. However, the logic of this myth is skewed; and, further, it is decidedly unscientific. Yet, this myth seems to carry with it the full weight and sanction of Western science and medicine for no other reason than the seeming truism that people’s bodies do decline as they get older. Unimaginable sums of money have been invested in both a mindset and a social infrastructure, all premised on the supposed validity of the aging myth. Modern conventional science and medicine have hardly a clue that the steady trajectory of human decline, with much of the pain and suffering sadly concomitant to it is, in fact, not inevitable, at least not in a qualitative sense. Much of the attrition and many of the degenerative effects normally attributed to the aging process are avoidable and even reversible.

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<sup>3</sup> Examples of such popular or scientific/medical myths can be seen in but a small sampling: 1) Earth is the center of the universe around which all other celestial bodies orbit. 2) Cigarette smoking does not pose a health hazard (as recently as the 1980s). 3) Modern pharmaceutical medicine will eradicate disease by the 21st century. 4) We’re born with all the neurons we will ever have, those being incapable of repair or regeneration. All these myths have been debunked.

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The degenerative aspects of the aging process, at least as regards neuromuscular decline (imbalance, pain, stiffness, etc.), stem from little more than the effects of an *archeology of insults* against the body. The cumulative effect of these insults—in incrementally resetting the brain’s default mode for motor behavior to a progressively lower standard of performance and response—provides the basis for the aging myth.

Of course, common sense dictates that there’s no stopping the chronology of aging. The hours, the days, and the years march on by, no matter what we do: we’re born; we live, and in the end we all die. But the qualitative aspects of how we live our lives and find ourselves impacted by events that occur as we age are unquestionably much more within our realm of control than conventional wisdom would have us believe.

Somatics may or may not have an effect on human longevity, in terms of life extension. Life extension, however, is not our goal. What we seek to achieve is a quality of life or, to borrow a concept from Dr. Andrew Weil, a “compression of morbidity.”<sup>4</sup> Somatics can help us manage the trajectory of neuromuscular decline as we age to insure that we retain a greater ease and freedom about the body for a longer time than might otherwise be the case by minimizing the effects of insults. Much of the recent research on aging has focused on preservation of mental faculties. An alternate view is presented in the words of John Ratey, M.D., clinical associate professor of psychiatry at Harvard Medical School: “...a sound mind won’t do you much good if your body fails.”<sup>5</sup>

The important premise to grasp is the spectrum of cumulative effects that stem from this archeology of alleged insults. The problem, for most peo-

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4 Andrew Weil, M.D., *Healthy Aging: A Lifelong Guide to Your Physical and Spiritual Well-Being*. Knopf, 2005.

5 John J. Ratey, M.D., *Spark: The Revolutionary New Science of Exercise and the Brain*. Little Brown, 2008.

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ple, derives from layer upon layer of insults incurred over a lifetime of living.

So, what exactly is an “insult?” An insult may be thought of as any experience, real or imagined, that (dis)stresses or “offends” the organism. That’s YOU, your body and your mind.<sup>6</sup> Within somatics, our concern is confined to the effects of these insults on the functioning of the sensorimotor/ neuromuscular system. Regarding such insults, we can gain some better appreciation of their impact by assigning them, more or less arbitrarily, to one of three levels that I have contrived for ease of understanding.

First, though, a bit of a primer, so you can have a basis for understanding how insults affect the body as they do. The body’s design is somewhat analogous to a car in that it has many different parts and systems, most of which are organized around a central frame. While a car’s frame is made of rigid steel, the body’s frame is made up of movable skeletal components—bones. These bones have no sentient value, meaning they cannot think to act in any way on their own. Bones only move when muscles make them move. The voluntary muscles of the motor system also have no will of their own. Muscles only act at the pleasure of the brain; and, when the muscles act, they do one thing, and one thing only—they contract. This begs the question: How is it that muscles know to contract or not contract? Muscular performance hinges on a seamless communication system between muscles and brain, a communication that occurs via sensory and motor (sensorimotor) nerve pathways. This communication network is delicate, and easily compromised by insults of various types. Insults can result in muscles becoming “stuck” in various degrees of contraction, also known as hypertonus. Significantly, not all insults have the same degree of effect on your body’s muscles. We can gain some better appreciation of the effects of various insults by assigning them, more or less arbitrarily, to one of three levels which I have contrived for ease of understanding. Let’s take a closer look as these different levels.

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<sup>6</sup> See Chapter 9, “Insults: How They Occur and How Their Effects Accumulate.”