

ALSO BY DR. BILL THOMAS

The Good Life: A Fearless Guide to Greater Health and Well-being

What Are Old People For?

Tribes of Eden

Second Wind

Principia

Aging Magnificently

The Pursuit of Strength, Purpose, and Belonging

Dr. Bill Thomas

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Non-Fiction Aging Philosophy

The text for this book is set in Verdana Manufactured in the United States This book is dedicated to the memory of T. Franklin and Carter Williams

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We have no choice but to build the road of life as we travel.

While we are sure to stumble into failure and success, love and loss, these things are made more bearable (or joyful) by the people we share them with.





Introduction

And we are aging all of our years as well—emerging, living, and dying as best we can through the shifting relationships we encounter to co-create our lives from childhood through antiquity.

- Sylvia Brinton Perera

We are living inside a miracle. Compared to all the people who ever lived, we are the most likely to live a long and healthful life. If we have even a pinch of wisdom in us, we will treasure the people who share life's ups and downs with us.

During my years as a practicing physician, the elders I cared for often reminded me that life is full of strange and unexpected happenings. Experience taught them, and they taught me, that it can be hard to tell when a twist of fate will be remembered as good news -- or bad.

The people we know and love, and our relationships with them, are the wellsprings of the **strength**, **purpose**, and **belonging** that carry us through life. This holds true for people of every age and condition. We have no choice but to build the road of life as we travel. While we are sure to stumble into failure and success, love and loss, these things are made more bearable (or joyful) by the people we share them with. Life is less about circumstances and more about relationships.

I am honored to share this journey with you.

I have always been interested in the well-being of elders. I trained in

medicine when I was young and practiced for many years as a geriatrician.

In the early 1990's I co-founded the Eden Alternative with my wife, Jude. In the intervening years, it has grown into a global nonprofit dedicated to improving the wellbeing of old people.

In the early 2000's I founded Green House Project, a radically new approach to long-term care that replaces nursing homes with small, home-like environments, where people can experience greater well-being.

In 2007, I co-founded the ChangingAging.org blog with journalist and activist Kavan Peterson.

In 2014, Kavan and I organized a 25-city "non-fiction" theatrical tour to launch my book *Second Wind: Navigating the Passage to a Slower,* Deeper and More Connected Life¹ and to promote the documentary film Alive Inside.² That tour evolved over five years and included performances in more than 120 cities.

Spark is what comes next. It is a way of thinking about aging that honors the hopes and dreams of old people and ignites better health and greater well-being.

This approach is founded on four simple truths.

1. Ageism is a bigger problem than aging.

2. In order to age magnificently we must understand aging as a process of growth and development.

3. We are meant to explore "life beyond adulthood." Elderhood is a life phase with rich potential.

4. Greater strength, purpose and belonging builds resilience and resilience leads to greater strength, purpose and belonging. When researchers survey old people they find them to be nearly unanimous in their desire to remain as independent as possible and to live in the place and manner of their choosing for as long as possible.³

My decades of work with elders and innovators in the field of aging have allowed me to develop a practical understanding of what matters most when it comes to helping elders live how and where they choose.

I have combined these insights into the Spark approach. Many companies provide services to old people in America but only one is on a mission to Spark lives.

Working together we can use Spark to create:

- A deep understanding of ageism and how it interferes with our search for strength, purpose and belonging.
- An evidence-based approach to planning for greater health and well-being.
- A focus on the simple things that make a big difference
 -- how to move, eat, sleep, and heal.
- An active approach to creating and sustaining community and belonging.

In the pages that follow you will find insights drawn from biology, history and gerontology along with stories about people. Some of these stories are drawn from my years of experience working with elders. Others are more like folk tales and parables that can help us begin to think differently about aging (including our own aging process) and develop powerful responses to ageism and greater health and well-being.

People of all ages share a common desire to live in the place and manner of their own choosing. The actual place and the particular manner of living do not really matter as long as it is what the individual desires. When we find ourselves at home in the world, comfortable with who we are and how we live, we create a powerful sense of well-being that can propel us through the twists and turns life brings our way. What I learned across decades of caring for old people, supporting their families, advocating for change in the field, writing books and traveling the world speaking and teaching about aging can be summarized very simply:

> Strength + Purpose + Belonging = Resilience

Research studies show that an old person's physical strength is closely related to their ability to live life on their own terms.⁴ A measurable loss of strength can be an early indicator of a change in health status and one study found a direct association between a decrease in grip strength and the risk of death.⁵ A person's sense of purpose also contributes powerfully to health and well-being. The Japanese use the word *ikigai* when they refer to a person's "reason for being." The French use the term *raison d'être* to describe "the most important reason or purpose for someone or something's existence." Purpose matters.

We are social creatures and our very survival depends on our ability to create and maintain connections with others. The medical consequences of loneliness are both highly significant and especially well documented.⁶ Overcoming social isolation makes life better for people of all ages and abilities.

Spark is a comprehensive model for fostering health and well-being and some people may find it to be overwhelming at times. Don't worry, we are in this together. People can gain mastery over this approach through the careful study of Spark's four Pillars which are contained in the following books:

- Aging Magnificently
- The Good Life
- MESH
- The Lodge Handbook

The journey matters and it begins here. Learning how to age magnificently can show us how to spark lives for others -- and for ourselves.

PART 1 Reflections on Ageism

In 2005 the author David Foster Wallace addressed the graduates of Kenyon College. During that speech he told a little story...

"There are these two young fish swimming along, and they happen to meet an older fish swimming the other way, who nods at them and says, 'Morning, boys. How's the water?' And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes, 'What the hell is water?'"

I often think of these fish when the subject of ageism comes up. We are all little fish swimming in an ocean of ageism. It has surrounded us since our birth and it will endure after we die. It is everywhere we look and, therefore, very hard to see. Near the end of his speech, Foster Wallace reminded the young graduates that ...

"The real value of a real education, which has almost nothing to do with knowledge, and everything to do with simple awareness; awareness of what is so real and essential, so hidden in plain sight all around us, all the time, that we have to keep reminding ourselves over and over: This is water.

This is water."⁷

We will begin our struggle with ageism in front of a mirror-- where we can get the best possible view of what is right in front of our noses.



Nearly all societies contain a current of mythology that runs through people's relationships with mirrors, perhaps because they challenge our self image by revealing precisely how we appear to others. While many people avoid looking in mirrors, mirror gazing is actually a powerful tool in the struggle against ageism.





The Mirror Conspiracy

I want to have the courage to be loyal to the face I have made.

- Marilyn Monroe

The first time babies look in the mirror they almost always like what they see. There in the glass is another baby who laughs and smiles when they do. A year or so later human infants arrive at a startling conclusion -- they are the baby in the mirror.

Around six months of age, both human infants and chimpanzees are intrigued by mirrors and seem to recognize their reflection.⁸ For chimpanzees the novelty quickly fades. Human infants, in contrast, remain interested in exploring the baby looking back at them. It might seem that the mirror teaches the baby to recognize themself. In fact, it is the other way around. It is the human infants' growing understanding of themselves as unique and independent beings that leads them to understand -- "I am the baby in the mirror."

- Birth to 8 months (there's a mirror) Looks at reflection in the mirror.
- From 6 to 18 months (there's a baby in the mirror) Smiles at the baby.
- From 15 to 36 months (that's me in the mirror) Recognizes self while looking in the mirror.

While this might seem a small thing compared to milestones related to walking and language, the discovery of "I" helps us understand others in a new way. If I have thoughts and feelings, then others also have thoughts and feelings. This "theory of mind" is the foundation on which our ability to understand other people's intentions and emotions rests. This is how we begin to understand, and wrestle with, empathy, guilt, shame, embarrassment, and pride, all of which require us to compare ourselves to what we think others expect of us.

Ancient Romans believed that mirrors created connections to the divine.⁹ They also thought that a broken mirror severed these connections, wrenching souls from their bodies and leading to seven years of bad luck. Nearly all societies contain a current of mythology that runs through people's relationships with mirrors, perhaps because they challenge our self image by revealing precisely how we appear to others. While many people avoid looking in mirrors, mirror gazing is actually a powerful tool in the struggle against ageism.

Living, as we do, in a youth-obsessed society, most people make regular efforts to either ignore or obscure signs of aging. When people do think about "getting old" they most often experience the idea as a fall from grace, a betrayal. Evidence of aging can arouse intensely private concerns that many people are reluctant to discuss. This shamebased perspective on aging is heavily reinforced by a mediascape that ceaselessly proclaims: "Being young is always better than being old."

In fact, it is better to be ourselves-- at every age.



We begin our struggle against ageism in front of a mirror.

Admitting to the truth of our own aging can elicit painful emotions but without confronting those emotions, progress is impossible.

Our developmental work in this regard "mirrors" that of the young child.

It annoys me when people say, 'Even if you're old, you can be young at heart!' Hiding inside this well-meaning phrase is a deep cultural assumption that old is bad and young is good. What's wrong with being old at heart, I'd like to know? Wouldn't you like to be loved by people whose hearts have practiced loving for a long time?

- Susan Ichi Su Moon¹⁰

Some will find the experience of closely and uncritically examining our own faces to be an act of vanity. Others may fear this summons to come "face to face" with the reality of how we appear today. Mirror gazing is, after all, something we can always do tomorrow and many people do put it off every day, for the rest of their lives. Those who aspire to help themselves, and others, find their way toward a deep and soulful acceptance of aging must, however, begin by unmasking their own Mirror Conspiracy.

The key to aging with grace and comfort is finding that internal dialogue that encourages you as you would encourage a good friend and makes you feel like attractiveness isn't about having every feature look the same as it did years ago. It's about focusing on the whole gestalt—your presentation of yourself, your smile, your engaging eyes, a strong stride. That goes along with a dialogue that says, 'Life requires a constant adjusting.'

- Vivian Diller ¹¹

Today is the best day to go into the bathroom, close the door and stand still in front of the mirror above the sink. Today is the best day to make peace with the changes we see on our faces and feel in our minds and bodies.

No matter our age, the truth is that we are meant to live in the body we have -- today. "Jowls, prominent; ears, large; jaw, jutting" -- we can find the courage we need to be loyal to the face we have made. We can stop pining for a youth that is already gone and begin our search for the person we are meant to become.

Fortunately, there are some who have travelled ahead of us. They are exploring the domain of old age with new eyes and the fresh perspective of the recent convert to a new cause. The body forces on us a kind of maturity, a settling down into a grounded encounter with reality. Growing old also allows us to widen the lens of beauty so that it includes ourselves and, in doing so, accept who we are...

- Cynde Rothe 12

There is a powerful and unconventional belief which holds that voluntarily surrendering our faith in youth's perfection is the first step on a journey toward aging magnificently. Those who walk this path find that the mirror is exactly as kind to them as they are to themselves.

It is in the mirror that we find the courage we need to smile as we speak the deepest truth:

"I am growing old."

Practice: Mirror Gazing

- Level One Look into the mirror for more than a moment, 5-10 seconds
- Level Two See the face in the mirror and accept it as it is. Look at your face for a minute or less.

Pro Tip: if this is hard (for many of us it is) imagine the one doing the looking is someone else. How do your co-workers see your face, your friends, your family? Do they think about what 'should' look different? No, they see you or at least your physical representation. Look in the mirror and see the face. Try not to think much more about it than that. Put yourself in their mindset and see the face is the mirror as they do. It is what it is, and it is a good face. • Level Three - See our face in the mirror and embrace it as a map of the lives we have lived. Spend some time really seeing your face.

Try describing it like a poet, speak plainly about, "Cheeks, furrowed; coarse grey hair, flying frenetic."

We can learn to read the story of our lives as it is being written around our eyes and mouth and across our foreheads and cheeks.

Try writing the poem of your face. Select regular intervals, daily, seasonally, yearly, and keep the poems all in one place so you can reflect on them. They can be as long or as short as you desire. If this feels daunting, start with a haiku. A haiku is a Japanese style of poetry that is just five syllables, then seven, then five.

Wild brows arc down Bright eyes, atop melting cheeks Joy crinkles face, up
The way people experience aging is significantly different from what science tells us about the later decades of life.





The Power of Priming

Modern progress lowers the value of old people at the same time as it adds years to our lives. ... Do we make the old "decrepit" by not clarifying traditional roles for them? Do they become dysfunctional because we have no function for them?

- James Hillman¹³

Research shows that low levels of ambiguity are associated with calm emotions and a feeling of safety.¹⁴ High levels of ambiguity are likely to provoke fear and anxiety. Our brains are wired to seek certainty but life is full of ambiguity. Throughout the day, we reduce ambiguity by making "educated" guesses about things we don't understand. We do this even with simple things, like unfamiliar words in a sentence:

"He spent the morning roll-casting a caddis fly over a riffle about a mile upstream." 15

We may not know what a "caddis" is, but the context provided by "casting" and "upstream" primes us to believe "caddis" might be related to fishing-- and we would be correct.

We make these kinds of connections with social cues as well. We routinely draw on our knowledge of social expectations for even the simplest things, like the speed at which we walk and talk. These adjustments are made largely without thinking -- and that is the problem. When our brains have been "primed" by social prejudice we can end up acting on that prejudice, even when we do not realize this is happening.

Priming: The effect in which recent experience of a stimulus facilitates or inhibits later processing of the same or a similar stimulus.¹⁶

Americans commonly believe boys are better at math than girls. This idea is reinforced in a thousand different ways but often comes from the mouths of people we trust and respect.

For example, a recent national survey found "a strong correlation between a girl's beliefs about women's roles and her future daughters' subsequent math scores."¹⁷ It turns out that mothers who believe a woman's place is in the home often raise daughters who score lower on math tests. It's not just mothers -- teachers, counselors, and the media all send the message that boys are naturally better at math. But is it true? Are girls really worse at math than boys? A review of the literature published by Scientific American found that:

Although there are differences in math performance between girls and boys of both high school and college age, and when doing certain types of math, these studies find only a small gender difference in math performance. Thus, boys and girls are much more similar than different in math performance.¹⁸

Young girls are "primed" with the idea that girls are naturally prone to math anxiety and poor performance on math tests. It works like this. Girls receive messages informing them that boys are better at math and that they are likely to be nervous about math tests -- because they are girls. When they actually do receive a disappointing score on a math exam, they are primed to believe it is because they lack a talent for the subject. Many girls end up turning their attention to other subjects.

The consequences of this type of priming ripple across the education system and are a large part of the reason why women are substantially underrepresented in the fields of science, technology and mathematics. As of 2020, there was only one female engineer for every ten male engineers in the workforce.

Priming is a big deal -- and it isn't confined to misguided notions about gender.

In a classic study of aging-related priming, student volunteers were brought into a lab and asked to look at a series of photos on a screen.¹⁹

One group of volunteers was shown pictures of young people, while the other group was shown pictures of old people. After the volunteers viewed photographs for 10 to 15 minutes, a researcher thanked them for participating and told them they were free to go. Outside of the lab a hidden observer was positioned in the hallway. As each student volunteer emerged from the lab and walked to the elevator the observer timed how long it took the volunteer to reach the elevator and push the button.

When they analyzed the data they found that the group that had viewed photographs of old people walked significantly more slowly than the group that viewed the photographs of young people. Just 15 min of visual priming was enough to cause people to walk slower or faster.

Now imagine the impact priming has on people who have been surrounded by negative language, images and "humor" related to aging -- for seven decades or more.

To a large extent, the way people experience aging is significantly different from what science tells us about the later decades of life. Instead of experiencing aging as a process of growth and development, we are told to expect a "hard row to hoe" with an emphasis on diminishment and loss.

Because we are primed to see aging this way, when we encounter new situations related to aging we tend to interpret them in a negative light. We use the word "stigma" to describe the bad feeling we get when we think about bad things. Stigma surrounds death, disease, decay -and aging.

Stigma: A set of negative and often unfair beliefs that a society or group of people hold in common.

The word "stigma" is borrowed from the Latin word meaning "mark" or "brand." Its first use in English referred to the scar left by a hot iron—that is, a brand. Today, stigma is used to refer to a set of negative and often unfair beliefs that a society or group of people hold in common. The potent combination of stigma and priming routinely activates, often subconsciously, negative thoughts and actions related to aging. It is also possible to prime positive connotations of aging. A recent study conducted with Korean elders demonstrated that when the participants were primed with positive stereotypes related to aging, the participants' performance on memory tests improved significantly. ²⁰

An American study showed that even subtle priming with positive aging stereotypes "strengthened positive self-perceptions of aging, which, in turn, improved physical function."²¹ The positive priming led to measurable improvements in physical fitness scores for a study group with an average age of 81. We know that...

- Stereotypes can be negative or positive;
- Stereotypes have significant power, especially if people internalize them;
- Stereotypes can be operative without awareness and can influence physical and cognitive outcomes; and
- Negative stereotypes can be countered by positive priming.²²

Priming does great harm when it is attached to negative stereotypes. It is also true that priming can do good when it is attached to positive stereotypes.

The strategy of deliberately using positive priming to foster well-being among elders is an important part of the "Sage-ism" movement.²³ Founded by the Rabbi Zalman Shalomi-Schachter in the 1990's, Sage-ing presumes that growth is not only possible but essential for those living in the later decades of life. There are dozens of Spiritual Eldering Institutes around the country that offer old people an alternative narrative about aging.

The new, more positive, story lessens the sting of aging-related stigma and discrimination. This group has developed rituals, ceremonies, languages and communities that help people explore aging in new and exciting ways.

We can do the same for the people we care about, and for our-selves.

Practice: Prime Yourself

Step 1: Recognize you can inoculate yourself against ageism by exposing yourself to age positive or anti-aging ideas.

Step 2: Commit to developing a regular practice (ideally daily) to prime yourself against ageism.

Step 3: Brainstorm lots of sources of age positive or anti-aging messaging you have access to.

Pro Tip: If you feel stuck, have a friend brainstorm with you or visit OldSchool.info, a clearinghouse of anti-ageism resources.

Step 4: Select the one(s) that would be the easiest to fit into your life. Subscribe, schedule and set yourself up to interact with them regularly.



Ageism is a complicated social blight that goes well beyond black balloons and the better we understand it, the more effectively we can overcome its ill-effects.





Beyond Black Balloons

Suppose we could see hurtful age stereotypes for what they are-not to mention the external policies and procedures that put the "ism" after "age." Suppose we could step off the treadmill of age denial and begin to see how ageism segregates and diminishes our prospects. Catch our breath, then start challenging the discriminatory structures and erroneous beliefs that attempt to shape our aging. Until then, like racism and sexism, ageism will pit us against each other; it will rob society of an immense accrual of knowledge and experience; and it will poison our futures by framing longer, healthier lives as problems instead of the remarkable achievements and opportunities they represent.

- Ashton Applewhite ²⁴

Balloons symbolize goals, dreams, and aspirations. They tug at their strings, always ready to break free and take flight. We would follow them if we could.

Red balloons are used (in real life and as emojis) to signal love and happiness. Despite all this positive symbolism, some people delight in arranging birthday celebrations (especially for the 40th and 50th) that feature black balloons.

The idea is to make a joke of the fact that the celebrant is no longer young and now confronts a grim decline into hardship, sadness, and (ultimately) the grave.

This is ageism in the form of latex and helium.

The black balloon trope communicates the false notion that a single number (one's age) communicates what is most important about us.

Ageism is at work whenever we see the arbitrary assignment of value to a person or group of people according to their age rather than according to their merit. We are most familiar with the commonplace bias against old people that reveals itself in caricatures of doddering fools who can't see, hear, or think clearly. But, consider this...

Let's suppose you are invited to a young girl's birthday party. She will be starting kindergarten in a few months and everyone is so excited! To celebrate the occasion her parents have made dunce caps for the birthday girl and all her little friends to wear. After all, they are all girls and everyone knows girls are bad at math so why not have a laugh? It will be so funny to watch them run around the backyard wearing their dunce caps! What kind of parents would condone such a thing? What kind of parents would do such a thing? The answer is that asking little girls to wear dunce caps (Haha! So funny!) is within spitting distance of child abuse.

Bringing black balloons to the birthday bash of a 50 year old is essentially the same thing as the dunce cap escapade. It reinforces an unfounded prejudice (old people are sad and have nothing to look forward to) in a way that undermines the happiness and well-being of an innocent person.

Racist jokes are not funny. Sexist jokes are not funny. Ageist jokes are not funny. While it is easy to imagine the outrage felt by the parents of the dunce-cap-wearing birthday guests, many people pass over ageist jokes without comment. This is unfortunate.

Ageism is a complicated social blight that goes well beyond black balloons and the better we understand it, the more effectively we can overcome its ill-effects. We can begin by separating ageism into its most common varieties.

Bias	Young	01d
POSITIVE	Great with technology	So wise!
NEGATIVE	Poor work ethic	Weak Neeky

Let's consider each of these boxes in turn.

Positive Ageism Directed at the Young

American society idealizes youth and the young. The cardinal virtues of our time -- speed, strength, and aggressiveness -- are all associated with youth.

While this might seem to be entirely to youth's advantage, it does create unwieldy expectations that can prove hard to meet. The lionization of youth supposes that all young people are, or should be, strong, fast and aggressive. But not all young people are like that. Some are notable for their calm thoughtfulness and gentle nature.

There are those who insist that positive stereotypes (Boys are good at math!) do no harm. But that is wrong. Judging people according to the imagined virtues of a group denies the truth of their individuality. It creates an unyielding yardstick against which they will be measured regardless of their own merits. Many, too many, find that when they are measured, they are found wanting.

When we talk to young people it is good to remember that they are just as strange and wonderful as the rest of us.

Positive Ageism Directed at the Old

If youth contains the pinnacle of life it follows that the old people who most resemble young people would be the most worthy of our respect.

We can see this dynamic at work in the way we use the word "still" when talking about old people. People are bragging about themselves when they say, "I still work" or "I still drive." They are bragging about their older friends and relatives when they say "She still lives alone" or "He still walks five miles a day." The word "still" in these sentences is used solely to emphasize how the old person actually resembles a young person.

The situation is just as bad when we choose to praise old people -- for being old. Positive ageist stereotypes of old people emphasize their wisdom, soft-spokenness, and understanding nature.

While it is true that some old people display these virtues, there are plenty of loud, obnoxious old fools in circulation. The fault here lies in judging individuals based on a number (their age) rather than who they are as people.

Negative Ageism Directed at the Young

Adults have been criticizing the younger generation for at least 2,500 years.

Aristotle wrote of the young people of his day this way: "They think they know everything, and are always quite sure about it."

By the 1700's Reverend Enos Hitchcock was complaining that, "The free access which many young people have to romances, novels, and plays has poisoned the mind and corrupted the morals of many a promising youth..."

By 1995 the Financial Times had had it with a generation of young who seemed to have lost, "The traditional yearning for a benevolent employer who can provide a job for life... In particular, they want to avoid 'low-level jobs that aren't keeping them intellectually challenged."

It should be noted that each of these generations rose to the challenges of its time. Those who painted them in such broadly negative terms revealed more about themselves than about the young people they were criticizing.

Negative Ageism Directed at the Old

A direct, if unintended consequence, of awarding a monopoly on virtue to the young is that the old are regularly weighed against this standard -- and found wanting.

Indeed, the caricatured image of an old person is, in almost all ways, a photographic negative of an idealized young person. As we have seen, these attitudes do significant damage to old people impairing their mental and physical health and well-being at every turn.

Worse yet, ageist prejudice is a form of bigotry that is spoken of freely in polite company.

Few hesitate to define the later decades of life as a sad and lonely

time. Some make ageist jokes that demean old people, confident that they will get a laugh or at least a knowing chuckle.

People call old people "honey" or "deary" and address them as "young man" or "young lady" thinking they are being nice. They are not being nice.

Negative ageism directed at old people shortens lifespans and drains happiness from lives that should be longer, and happier, than they are.

Overcoming Ageism

Elizabeth Young-Bruehl sees prejudicial attitudes and behaviors as the outward projections of fear, hate or fantasy that spring from the prejudiced person's own psyche. In other words, ageism is inside of us.

This should not come as a surprise. After all, we have lived our whole lives in a deeply ageist society. Projection theory helps us begin to understand how people displace their own feelings of fear and disgust onto people they believe are unworthy of respect. Conversely, we project positive traits on those we believe should be admired. Neither type of projection is good.²⁵

Overcoming ageist prejudice begins with us. Our first step must be to confront our own feelings about age and aging. We can build a new belief structure about what it means for us to grow old. With that achievement unlocked, we can begin to challenge ageism at the societal level.

One good way to get started is to challenge ageist "humor" as it happens. Instead of looking away we can ask people directly, "Why are the black balloons funny? What do they mean to you? Do you think [the celebrant] thinks this is funny?" The goal here is to help people explore their unthinking ageist prejudice.

Sometimes it helps to hear "someone else" say something we ought to understand about ourselves but don't.

The following quotes reveal what it sounds like when another person consciously rejects ageism and embraces the value of life at every age.

Anti-Ageism Quotes

It would help not to treat age as if it were any less of a pleasure than it was when we were six and saying, 'I'm six and a half.' You know, we could be saying, 'I'm fifty and a half' and say it with joy. Each age is different and has different discoveries and pleasures. — Gloria Steinem

I think we need to very intentionally have women friends, and we need to seek out women who are braver, who challenge us, who can teach us, and who together with them we can face age with more courage. — Jane Fonda The reason that they make us all youth-oriented and vain and try to think that if we get old we are of no use anymore is because we get wiser, and they know that. And when I say 'they' I mean those who are fearful of change. We are getting older, and we are getting wiser, and we are getting freer. And when you get the wisdom and the truth, then you get the freedom and you get power, and then look out. Look out.

We are redefining every age of our lives. All of us are. I mean twenty-year-olds today, they aren't where I was at twenty, and they're in a very different world. So how can we say that we're not different, we're not a different kind of sixty- or seventy- or eighty-year-old? We are! So I'm just hoping for myself and for the women around me and that I come into contact with, I just hope that I'm still learning. -- Pat Mitchell

What Do You Mean 'Old'?

In a yoga class, the teacher remarked in a tone of exasperation, "I'm old now – I don't just flop over into these poses like I used to." A student, who understood the insidious nature of using young and old pejoratively, asked (compassionately), "What do you mean by 'old'?"

The question took the teacher by surprise. She paused a moment before answering, "I guess I mean that I know my body better now and I treat it better." To which the student responded, "That sounds pretty wise."

The teacher's demeanor changed from one of self-deprecation to a quiet glow of wisdom and pride.

The act of asking ourselves, and others, what we mean by "young"
or "old," opens up new possibilities around the meanings we attach to age and aging in our society. Just as our yoga teacher offers adjustments that can open up space in our bodies, we can offer others the space we need to rethink aging. Sometimes, the best way to overcome ageism is to ask the simple question, "What do you mean by 'old'?"²⁶

Practice: Responding to Ageist Comments

As we have seen ageist comments come in the negative and positive form, often unintentionally. Here are three strategies to respond to help raise your own awareness and that of those you are with:

Step 1: Brainstorm different ageist comments you have heard, both positive (compliments) and negative (insults).

For example:

- You'll understand when you are older.
- I'm having a senior moment.
- I'm too old for _
- You're too young for
- Have a nice day, Young Lady/ Man!
- You're 35? You're a baby.

- You can't be 70 -- you have such smooth skin!
- She's 53 years young.
- You look great for your age!
- 80? Oh, that's not old!
- Oh wow, you still work!
- Are you really 85? But you're so sharp!
- 60 is the new 40.

What others can you think of? Add them here.

Step 2: With a partner, trade saying and responding to the ageist comments. If you do not have someone to practice with, record a video of yourself saying them with pauses in-between. Play the video back and respond. Practicing helps us to be ready with a response when they pop up in the real world.

Three ways to respond:

1. Respond in kind--repeat the compliment back to them. "You look great for your age too!"

2. Cheerfully--show your pride about what they are trying to compliment.

> "60 is still 60 and I prefer 60 to 40!"

3. Answer with a look of genuine puzzlement.

"What do you mean?" For an example see the yoga story above.



While stereotypes serve to erase individuality, aging celebrates difference.





Ten Poisonous Myths

When you've met one 80 year old, you've met one 80 year old."

- T. Franklin Williams

Humanity's "isms" lead people to think and say terrible things about people they don't even know. While we have made progress toward addressing sexism and racism it must be said that we still have a long way to go. Unfortunately, much less progress has been made relative to ageism.

Within American society, some common generalizations are mistakenly thought to be truths about old people. Many old people also come to believe these stereotypes. The myths, stereotypes, and negative attitudes that are commonly associated with aging greatly influence interactions with old people. They also shape the systems we use to deliver health care to old people.

While stereotypes serve to erase individuality, aging celebrates difference. The late geriatrician T. Franklin Williams often commented that, "When you've met one 80 year old, you've met one 80 year old." His point was that we should never fail to account for how aging shapes minds and bodies to make us more different from others our age. The best way to defang dehumanizing stereotypes is to bring them into the light. The Ten Myths about aging explored below are meant to launch a conversation about assumptions we rarely question.

The First Myth

Young people are a blessing. Old people are a burden.

Young people make a dramatic entrance. Waves of pain, and blood spilled, yield a wailing infant who is, nearly always, perfect. We find fascination in their fingers and toes knowing they have yet to be tested by time and fate.

Old people arrive in the world slowly and tentatively, like a new day dawning. We understand that age brings us bodies that may be bent or even broken. Age also endows us with habits and insights a lifetime in the making.

A child's potential seems plain to us and, in comparison to that potential, the burden of child rearing seems small. Because we equate youth with perfection, people tend to see old people as having very limited potential. This is our fault, not theirs.

The burden of supporting old people looms large in people's minds, not because caring for old people is harder than caring for young people, but because we fail to balance the effort against the rich potential that aging brings into being.

The Second Myth

Young people are happy. Old people are sad.

Generally speaking, young people are pretty happy. This does not come as a surprise because we expect young people to be happy. After all, they are young. What does seem surprising is that old people are also happy.

In fact global research on aging shows that the 70's are the happiest decade of life. The worldwide evidence that old people are in fact quite happy is in direct conflict with the often unstated assumption that old age is a sad and depressing affair.

We draw on our memory when we attempt to imagine our future. As a result, we are often led to believe that our future will be very much like our past. Because all of the growth we have experienced in life is behind us, we are also prone to seeing the present "as a watershed moment at which they have finally become the person [we] will be for the rest of [our] lives." ²⁷

Young people and old people are pretty happy on the whole but research suggests that middle age is the unhappiest phase of life. The unhappiest decade of life is the 40's and, on average, 47 is the unhappiest age. When young people think about middle age, they mostly assume it will be a happy time. When middle-aged people think about old age, they tend to project their current unhappiness into the future and conclude that future decades will be very sad indeed. Despite what middle-aged people believe, old age is a happy time of life for most people.

The Third Myth

Young people are healthy. Old people are sick.

Walk the halls of any general hospital and you will quickly see that most of the beds contain -- old people. It is also true that people over the age of 80 fill an average of 22 prescriptions a year while young adults fill an average of three prescriptions per year.²⁸ It might seem obvious that old people are sick and young people are healthy but the truth is much more interesting.

Let's imagine a woman who is 100 years old. Becoming a centenarian is a remarkable achievement but to reach this milestone this woman would have had to be pretty healthy in her 90's. To reach her 90's she would have had to be in good health in her 80's. And so on and so on. It turns out that every centenarian has enjoyed good health for a century or more. The twenty year old may be healthier today, but how long will this good health endure? No one can say for sure.

Healthy old people get to be very old people because they were healthy young people and also healthy middle aged people. They are the champions of good health and we should not let illness in the last years of life obscure that fact.

The Fourth Myth

Young people are strong. Old people are weak.

Heavyweight Olympic weightlifting champions are young. Since 2000, the gold medalists have averaged just over 24 years of age. The oldest NBA team to win a championship was the Chicago Bulls, with an average age of 32.

Not all young people are strong but all strong people, it seems, are young. But, what if strength is something more than lifting heavy steel plates over one's head, or running fast and jumping high? What if our culture has "rigged the game" by defining strength almost exclusively in terms that favor the young? After all, what is strength if a grandfather who buries a son and takes his grandchildren into his home and raises them does not qualify as strong? Should we say that a wife who provides years of round the clock tender loving care for her husband as he journeys through dementia is weak?

Strength, like love, comes in many forms and old people are endowed with sometimes extraordinary strength that keeps families and communities together. Not all heroes, it seems, wear capes.

The Fifth Myth

Young people are independent. Old people are dependent.

John Wayne has much to answer for. So do all the movie cowboys and astronauts who made it seem that real independence means going it alone and never needing anyone.

When we look at how human beings really live, however, it is obvious that we are social creatures. We are made to be with and depend on each other. Do young people have some special exemption from relying on others? Nope, they do not. From their first breath, young people rely on others to feed, clothe and shelter them. Even when they are grown they rely on others for the mental and material resources needed to get started in life. The myth of independence does great damage to the well-being of old people. It leads them to think that refusing help they need or remaining too long in a too-big house will win medals for independence. In fact, this is a loser's game.

Old people really are dependent -- just like everyone else. While it is true that the nature of our dependence changes across our lifespan, our need for the shelter of each other never changes. What matters most is how we rely on each other and what price is to be paid for the help we need.

The Sixth Myth

Young people dream about the future. Old people dread the future.

At first it might seem obvious that young people think mostly about the future because their past is -limited. By the same token, we could imagine that old people spend more time thinking about the past because their future is -- limited. Naturally, the truth of the matter is much more complicated.

Think about the pressure that future-oriented adults place on young people: "You must be excited about the future! You've got your whole life ahead of you! Your future's so bright!" Many young people find that their fear of failure rises in proportion to expectations of success. The word "anxiety" is rooted in the word "dread." Every single day, young people confront a future brimming with both possibility -- and doom. When nothing is certain, and everything lies in the balance, anxiety is sure to be on the menu. The dynamics are quite different for old people. The older we get, the more certain our future becomes.

Despite all advances in medicine and surgery, the mortality rate remains stuck at 100 percent. Knowing we are mortal beings paradoxically relieves anxiety and inspires an enhanced willingness to live each day to its fullest. There are gifts that come to us only when we shed the illusion of immortality. While it is true that old people reminisce, revisit (and revise) their past it is also true that, in general, old people worry much less about the future than young people do.

The Seventh Myth

Young people need adventure. Old people need safety.

Author Robin Sharma writes, "As you move outside of your comfort zone, what was once the unknown and frightening becomes your new normal."

It seems natural that young people, constrained as they are by family and school obligations, might yearn for adventure and, it's true -- many young people do seek out adventure. But despite what we see on the movie screen the central purpose of youth is the opposite of adventure and derring-do. Youth is actually a journey into one's comfort zone. There are names for this process; we call it "finding yourself" and "settling down." Old age presents us with new ways to journey out of our comfort zones. Old age brims with adventure. On leaving paid employment, many people choose to travel. They move to warmer weather, move to be closer to the grandkids, move just because they want to.

As the years pass people find that the "unknown and frightening" begin to pay regular calls. Bodies change. Marriages end. Lives go in new directions. Old age delivers plentiful opportunities to find a "new normal" and each one is an adventure.

The Eighth Myth

Young people are randy. Old people are asexual.

This kind of depends on what you mean by "sex." Young people have a well established reputation for being enthusiastic about intercourse. But, it is also true that some young people aren't actually that interested. In fact a growing number of young people prefer not to engage in sexual activity at all. Studies have estimated that up to ten percent of people aged 18-30 report having little or no interest in sex.²⁹

There are plenty of old people who are also untroubled about having a low libido. But it is also true that old people, as a group, have much more sexual experience than young people as a group. In any given nursing home, it is likely that the people living there have had more sex than the staff working there.

It also turns out that many old people experience sex that puts the emphasis on intimacy with less of a fixation on genitalia.

A large British survey of old people found that, "For those in a relationship, sexual satisfaction was strongly associated with both the quality of communication with their partner and contentment with their relationship."³⁰

The Ninth Myth

Young people have many friends. Old people are friendless.

It is good to have friends and conventional wisdom holds that young people have more friends and are less lonely than old people. The truth is a bit more complicated than that.

A recent survey conducted found that the so-called "social media generation" is the one that feels the most alone. In one survey, nearly 30 percent of Millennials reported that they do not have friends.³¹

One explanation for loneliness among the young lies in the "vivid relationship" researchers have found between social media use and loneliness. Greater usage of social media is associated with higher levels of loneliness among users.³²

Social media usage is lower among people in their 80's than people in their 20's and reduced exposure to these platforms may be partially protecting old people from loneliness.

It is also true that, compared to young people, old people are more likely to live alone, experience the loss of family or friends, and contend with chronic illness, and hearing loss.³³ Those factors also increase the risk of loneliness and loneliness elevates the risk of poor health outcomes at every age.

No matter our age, what matters most is our ability to be with, and enjoy the company, of the people we love best.

The Tenth Myth

Young people want to be with young people. Old people want to be with the old people.

Age segregation is the visible, public consequence of hidden, internalized ageism.

We introduce age segregation early. We use children's ages to sort them into "grades." Workplaces mostly exclude the young and the old (unless the organization is caring for the non-middle-aged). In late life, people are herded into age segregated senior living communities.

Outside of family networks, it is difficult to find places and spaces that welcome people of all ages. The big question is why? Why do we do this? What if this is a bad idea?³⁴

There is, practically speaking, no research that supports the idea that young people and old people benefit from being separated from each other. Indeed the entire society-wide obsession with age segregation can most charitably be interpreted as an ageist stereotype gone wild.

Some people say old people find young people to be noisy and their enthusiasm to be irksome. Others say young people find old people to be boring and grouchy. When we balance these prejudices against the mountain of scholarly research that shows how much young people and old people enjoy and benefit from being together we must ask: "Why?" Although there are more old people alive than at any other time in human history, we are also living through an epidemic of aging illiteracy. People young and old are largely ignorant of the basic truths that define age and aging.

Practice: Swapping Myth for Truth

Step 1: Download or Print the 10 Myths infographic from QR code below

Step 2: On the backside rewrite the myths to reflect the truth of aging as you have experienced or witnessed it.

For Example:

First Myth: Young people are a blessing. Old people are a burden. First Truth: We all give and need support throughout our lives.

Step 3: Hang these truths somewhere you will see them regularly -- your fridge, make it your computer backdrop, etc.





PART 2

How We Age To live is to change. From losing baby teeth to losing taste buds, our bodies are constantly changing. Some of these changes are obvious because they alter physical appearance. Other changes are less apparent to others and even to ourselves.

While aging takes things away, it also bestows new gifts. Age gives us new eyes and ears, muscles and bones, and if we learn to live with, rather than rail against, these gifts, great things become possible.

We live in an era that is witness to the greatest age boom in human history. Ironically, it is also a time of great aging illiteracy.

The chapters in this section offer the reader an introduction to "aging literacy." The material they include can help us avoid the error of defining the changes that come with age purely in terms of decline.

Instead, we can adopt a broader, and better informed, perspective that helps us understand, live with, and appreciate our aging bodies, minds, and families.



Wrinkles, which do not cause physical pain and do not limit our ability to laugh or smile, are thought to be especially stigmatizing and people are especially eager to hide them if they can. The question is, "Why?"




Bodies

We are not our bodies, our bodies are our own

- Kyrié Carpenter 35

Faces

The story of the aging human face intersects with the story of Halloween every year when millions of girls and women dress up as "witches."

Anyone who has ever tended the candy bowl on Halloween has seen the costumes. In fact, they seem quite ordinary, customary and, let's be honest, unimaginative. The history behind these costumes, however, is about as ugly as it gets.

The popular image of the witch was formed centuries ago and is based on stereotypes and tropes that were explicitly designed to do harm to old women. Indeed, they served as instruments of cultural warfare.

Europe endured a 300-year-long witch hunt (1450-1750) that led to the

execution of 50,000 to 100,000 people (some accused witches were male) and the torture of at least as many more. Witch imagery was explicitly designed to degrade and diminish the value, the worth and importance of women -- especially women "wise with time."

The central battleground in the struggle between those who would honor and those who would demean old women relates to the face, and the signs of aging that appear there.

If we set aside youthful, cute as a pixie, made for television witches it is clear that witches are -- old. Their faces tell us they are old and their faces are to be feared.

Any doubts regarding the cultural preference for youthful female faces can be dispelled simply by watching cable television news where young women are highly visible and old women are invisible.

Because we live in a time when a woman's face is thought to define her worth, old women have every incentive to appear as young as possible.

When young women don a witch's "face" we interpret it as a disguise because surely no young woman would ever want to look old.

We imagine a witch to have a prominent nose and ears. Why? These changes are actually a normal part of aging. Our facial bones stop growing before we enter adulthood but the cartilage in the ears and nose continues to grow for the rest of our lives. This is true for men and women and explains why old people's facial features change in such a familiar and predictable way as we age.

A "witch's wart" is commonly used to mar the young trick or treater's face. Normal aging results in an enlargement of the sebaceous glands that are responsible for secreting the oily substance that helps keep our skin healthy. At the same time these glands are reduced in number resulting in an overall reduction in the natural skin oil known as sebum. Sebaceous glands are associated with hair follicles, and it often seems that these enlarged glands have a hair growing out of them. This is a normal change that is associated with aging and has nothing to do with "warts" which are caused by viruses that infect skin cells.

Aging also results in the redistribution of subcutaneous fat in the human face. There are fat pads surrounding our eyes and cheeks; they shrink as we get old. Facial bones can seem more prominent in old people but they do not change; it is the loss of facial fat that makes them seem more prominent. This is perhaps the only time the popular conception of beauty penalizes women for being less "fat."

The witch's coarse unfashionable gray hair is an exaggeration of a normal phenomena. In fact graying often begins in the 30s and hair follicles get smaller and less numerous resulting in a thinning of the hair. It is the reduction in the scalp's natural production of oils that makes hair less "bouncy." But that is not all; some of the brittleness that is thought to be the result of aging is actually due to treating hair with dyes, chemicals, hair dryers and flat irons. In other words, treatments designed to make hair look vounger can actually make hair look old.

Wrinkles, which do not cause physical pain and do not limit our

ability to laugh or smile, are thought to be especially stigmatizing and people are especially eager to hide them if they can. The question is, "Why?" Why does the image of a loathsome ugly witch consist almost entirely of exaggerated representations of normal changes in the face, hair and scalp that happen to all old women?

The answer lies at the intersection of ageism and sexism. For centuries, women have been taught to believe that there was something wrong with aging and the older they become, the more like the stereotypical witch they appear.

In fact, old women have immense value. We should stand side by side with them and defend their worth, and the depth of their understanding, against those who take pleasure in mocking, shaming and dismissing "women wise with age." We would be shocked if our daughters and granddaughters went trick or treating in "Blackface" or appeared costumed as a "greedy" Jew. Dressing up as a stereotypical witch sends the same kind of message.

Because they are growing up in an ageist society, few girls and young women appreciate the damage that this form of sexist ageism does to old women.

Those of us who are older should know better. We can "do better" by teaching young people about this kind of prejudice and the impact it can have on "women wise with time."

Muscles and Bones

There is a goddess that almost no one remembers. Her name was Penia and she was the Greek goddess of poverty. She was never very popular but her message to humanity resonates down to today:

Hard work, and a bit of luck, can lead one from poverty to prosperity.

Despite the utility of this advice, doctors are the only ones who speak her name nowadays. They use "penia" to describe a lack of something essential.

In the late twentieth century doctors used "penia" began to coin words that describe some of the changes in muscle and bone that arrive in the later decades of life. In 1989 Dr. Irwin Rosenberg wrote the following about muscle loss in aging: "There may be no single feature of age-related decline that could more dramatically affect ambulation, mobility, calorie intake, and overall nutrient intake and status, independence, breathing, etc. Why have we not given it more attention? Perhaps it needs a name derived from the Greek. I'll suggest... sarcopenia".³⁶

Sarcopenia: A slow and progressive loss of muscle mass and strength associated with aging in the absence of any underlying disease or condition.

Dynapenia: The gradual loss of muscular power as evidenced by decreased grip strength and walking speed.

Osteopenia: a loss of bone mass which is clinically significant but not as severe as osteoporosis.

Studies show that, as we age, we are prone to losing muscle mass (and power) and bone density. After age 30, men begin to lose about four percent of their muscle mass per decade. Most men shed about a third of their muscle mass over their lifetimes.

Sarcopenia and osteopenia also seem to be related. A 2015 report from the American Society for Bone and Mineral Research found that sarcopenia more than doubled study participants' risk of experiencing a low-trauma fracture from a fall, such as a broken hip, collarbone, leg, arm, or wrist.³⁷ This is not, however, the whole story. Remember Penia's admonition that work and a bit of luck could lead one from poverty to prosperity? Well this turns out to apply to muscle and bone as well.

It is said that an ounce of prevention is worth a pound of cure. It is also true that prevention in the early decades of life can yield pounds of bone and muscle in the late decades of life.

If you have the good luck to...

- NOT be born with European or Asian heritage and
- Not be a smoker or heavy drinker and
- Not be thin

then congratulations are in order-- you have a reduced risk of sarcopenia and osteopenia.³⁸ For the rest of us, some hard work is required. At the same time that researchers began measuring the age-related loss of bone and muscle, other scientists were busy exploring the body's ability to build bone and muscle in late life.

It turns out that the muscle and bone adheres to the first law of aging -- "Use it or lose it."

Prolonged inactivity sends a message to the body that youthful muscle and bone are no longer useful and do not need to be maintained.

One of the most important reasons old people are prone to prolonged inactivity is the ageist presumption that a sedentary lifestyle suits them best. Think rocking chair and porch. When scientists got old people up and moving, a not very amazing thing happened. Their bodies started adding bone density and muscle mass. The changes also included increases in how powerful their muscles were.



Exercise speaks in the language the body understands. It tells the body that there is hard work to be done and it will need to create stronger muscles and denser bones if we are going to do the job right.

Circulation

Sometimes it takes a while to figure things out. Consider, for example, something as simple as the idea that the heart pumps blood through the body -- figuring that out took centuries.

Galen was the first physician who is known to have speculated on the circulation of blood. In the year 157 CE he was chief physician to the gladiators in Pergamon. His job gave him numerous opportunities to directly observe the still-beating hearts of defeated fighters. He could see that blood moved through vessels but erroneously concluded that it was the liver that pumped blood to the rest of the body.

Nearly 500 years later, Spanish physician Michael Servitus updated

Galen's conclusions based on experiments he carried out on animals. Servitus decided that it was the lungs that pumped the blood through the body. Just seven years later Servitus was burnt alive — atop a pyre of his own books.

Credit for figuring out how the heart pumps blood through the lungs and the rest of the body goes to William Harvey. He wrote, "I considered the symmetry and size of the ventricles of the heart and of the vessels which enter and leave the [heart]. I also recalled the elegant and carefully contrived valves and fibres and other structural artistry of the heart."

Harvey believed in witches. At the request of King Charles I, he agreed to examine a woman who was suspected of being a witch. Harvey also remarked that "Europeans know not how to order or govern their women."³⁹ There is no record of what his "witch examination" revealed but it is likely that things did not go well for the accused.

It is easy for us to mock these pioneers in medicine for beliefs we now know to be false. But how often do we make similar mistakes in our own lives?

It is well known that regular daily exertion is good for the heart and blood vessels. It also makes for healthier muscles and bones. Research has also confirmed that the most potent tool we have for reducing the risk of developing dementia is regular exercise.

The combined results of 11 studies show that middle aged people who exercise regularly can cut their risk of developing dementia by about 30 percent; for the Alzheimer's type of dementia the risk was reduced by 45 percent. Benefits also accrue to old people who put their hearts to work. A study that included 716 people (average age of 82 years) showed that those who exercised the least were more than twice as likely to develop dementia than those who exercised the most.⁴⁰

Despite having this knowledge, millions of people, of all ages, choose a sedentary lifestyle. Might people living in the future look back on us -- and laugh?

Strange as it may seem very often a little bit of sweat is the best medicine of all.

Elimination

Much has been written about "incontinence" as it relates to our aging bodies but what about "continence?"

In the 14th century, the word "continence" referred to "moderation in sexual intercourse, chastity, restraint of the sexual passions within lawful bounds."

"Continence" came into English from the Latin word "continentia" meaning "holding back, repression." The first use of the term "incontinent" to mean being "unable to control bowels or bladder, unable to restrain natural discharges from the body" is dated to 1828.

For centuries the words "continence" and "incontinence" have been used to describe subjects many people are uncomfortable with, namely the exchange or release of boldly fluids.

Human aging causes natural, gradual changes in the "exchange or release" of bodily fluids. As we age, our bladders become less elastic and hold less urine.

As a result old people urinate more frequently than young people. This difference is most notable at night with the experience of nocturia (rising from sleep to urinate). As we age, nocturia becomes more common. Also, bladder muscles contract less forcefully and the flow rate of urine decreases. At the same time, the amount of urine left in the bladder at the end of urination increases (this is called the post-void residual).⁴¹ These changes are normal and most old people become experts at integrating these new dynamics into their daily lives.

Incontinence is not a part of normal aging. Jokes or suggestions to the contrary do real damage by leading people who lose bladder control to not seek medical attention.

Many old people understand, correctly, that regular exercise pays big dividends for the mind and body. But they remain sedentary.

Many old people believe, falsely, that urinary incontinence is a shameful "fact of life" that must be endured in private. This false belief stops them from getting medical help with diagnosis and treatment.

In both cases the fault lies mainly with the poisonous myths about aging that circulate in our society. It is ageism, not aging, that leads people into sedentary lives and the shame and social isolation associated with untreated incontinence.

Reflection: How Our Bodies Age

In a journal or in conversation reflect on:

- What age related body changes did you most fear? Why?
- What in this chapter most surprised you to learn?
- What can you do to better separate in your mind changes that are part of how we age (wrinkles) versus ailments wrongly attributed to age (incontinence)?

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Age gives us new eyes and ears, muscles and bones, and if we learn to live with, rather than rail against, these gifts, great things become possible.





Sensations

I raised to my lips a spoonful of the tea in which I had soaked a morsel of the cake. No sooner had the warm liquid, and the crumbs with it, touched my palate than a shudder ran through my whole body, and I stopped, intent upon the extraordinary changes that were taking place within me... I sensed that it was connected with the taste of the tea and cake, but that it infinitely transcended that [taste]. Whence did it come? What did it signify? How could I grasp it?

- Marcel Proust 42

Taste and Smell

Taste, smell and memory are joined together so deeply that we can be both unaware of these connections and profoundly shocked when they emerge into our consciousness. Consider, for example, the ability of odors to arouse autobiographical memories which are highly vivid, rich in emotional tone and, often, very old.

It can rightly be said that-- the nose knows.

It has been estimated that 80 percent of what we taste is actually related to the sense of smell. Researchers asked volunteers to sample food with and without nose plugs. When wearing the nose plugs they found that their sense of taste was less intense and less accurate. Interestingly, the nose plugs did not completely eliminate the sense of taste because food aromas can reach the nose through the back of the mouth. Taste without aroma is limited to five simple sensations (sweet, salty, sour, bitter, and savory).

While normal aging has little impact on the sense of taste, there is abundant evidence that our sense of smell diminishes over time. This can lead to a loss of enjoyment of food and the development of unhealthy dietary habits.

While there is nothing that can be done about the number and quality of olfactory receptors in our noses, we can make sure that food served to old people is hot and aromatic.

Doing so is like turning on a light in a dim room or turning up the audio on a television; it creates better alignment between the environment and the sensations experienced by old people.

Studies have shown that the areas of the brain that process taste and smell are closely linked with areas that host memories of people and places. Some of these memories go back to the earliest years of our lives and are also connected to strong emotions.

A common sexist saying held that, "the way to a man's heart is through his stomach." In fact, the stomach has nothing to do with love. The truth is that aromas, and the sensations surrounding them, are woven together with memory, emotion and pleasure.

Finally, it should be noted that normal age-related changes in taste and smell develop gradually. Sudden changes in these senses should be investigated because they could be linked to infection in the teeth, nose or sinuses.

Long term cigarette smoking is also known to accelerate the loss of taste and smell. Medications such as beta blockers and angiotensin-converting enzyme (ACE) inhibitors can impair taste and smell. In some cases, people in the early stages of Alzheimer's and Parkinson's may complain of a loss of taste and smell.

Sight and Sound

Age-related changes in vision and hearing have given rise to unusual and interesting words.

Two of them make use of the Greek word *presby*. While this word originally meant, "the one who leads the cattle" it gradually came to refer to an old person or elder.

During the 1600's however, the word Presbyterian referred to a Scottish church governed by elders (as opposed to bishops). They held to a modified form of Calvinism.

By the 1890's doctors were using "presby" as the root of two words that describe how our eyes and ears change over time.

Presbyopia: changes in vision.

As we age, the lens inside the eye gradually becomes less elastic. As this happens our ability to focus on objects close to us is reduced. At first people adapt by holding objects further away but eventually they concede to the need for "readers."

Reading glasses are the greatest invention in the history of human aging. Some argue that these simple devices changed the course of Western civilization.

In 1466 the Duke of Milan ordered hundreds of glasses of varying strengths and specified that he wanted the strength of the lenses to increase based on an average person's vision changes from ages thirty to seventy.⁴³ Eyeglasses extended the productivity of people over 40 and granted them "bonus decades" in which they could continue to expand their skill and knowledge.

Presbyopia also describes our changing response to light. As we age, our eyes admit less light and this dims our vision. Also, the speed at which we adapt to changes in light levels decreases. In other words it takes us longer to "see in the dark" and longer to adapt to a light that is turned on in a dark room. These changes cause no pain and are harmless by themselves.

Problems arise, however, when young people design lighting for old people and when lighting does not turn on and off gradually. Proper lighting must be individualized and changed as a person's experience with vision changes.

In 1910 Helen Keller observed that:

The problems of deafness are deeper and more complex, if not more important, than those of blindness. Deafness is a much worse misfortune. For it means the loss of the most vital stimulus – the sound of the voice that brings language, sets thoughts astir and keeps us in the intellectual company of man.⁴⁴

Presbycusis: changes in hearing.

One out of three people over the age of 65 has a measurable hearing loss. Just as close vision becomes fuzzy, many people find that ordinary speech and high-pitched sounds such as "s" or "th" become hard to distinguish. The impact of these changes is felt mainly in conversation, especially when there is background noise. These changes develop over decades and many people are only aware of them when others point them out.

Hearing aids are the auditory equivalent of eyeglasses but they carry much more stigma and many people resist using them.

We can be respectful of these changes by always facing a person when we speak and avoiding covering our mouths with our hands. Because presbycusis primarily impacts higher frequencies, many old people have an easier time hearing men than women.

Everyone can be better understood by everyone if we practice better diction, speak clearly and plainly and reduce our rate of speech. This can and should be done in a respectful manner. Helping people recognize and overcome the stigma related to hearing aids is also very helpful.

Touch and Kinesthesia

We use the word "touch" in two very different ways. In one sense it refers to sensations produced by our skin. In the other it refers to a pleasant emotion that blends warmth and gratitude.

Infants (human and otherwise) thrive when they are cuddled and attended to, and wither when they are deprived of this form of contact.⁴⁵ Gentle touch communicates caring, and support, and is deeply integrated into our species's social interactions.⁴⁶

Although it may not seem like it, the skin is actually the body's largest organ and is the sensory organ for touch. The thousands of nerve endings in the skin only respond to four simple sensations — pressure, hot, cold, and pain. Of these, only the sensation of
pressure has its own specialized receptors. All other touch sensations are created by combinations of the four receptor types.

A **tickle** results from the stimulation of neighbouring pressure receptors.

The sensation of **heat** is derived from the stimulation of hot and cold receptors.

Itching is caused by repeated stimulation of pain receptors.

We perceive **wetness** through the repeated stimulation of cold and pressure receptors.⁴⁷

Studies have shown that aging skin perceives the same sensations as young skin. The difference is that the threshold for eliciting a response rises with age. It takes a bit more pressure to feel pressure and a bit more heat to feel hot. These changes have practical implications. A review of devices including hot water bottles, hot bean bags, and electric heating pads revealed a rising incidence of serious burns among old people. The authors found that many of these injuries are related to a higher threshold for heat perception and conclude that better education about age-related changes in skin and sensation could reduce the toll of injuries. ⁴⁸

Kinesthesia (sometimes called proprioception) is a sense that everyone feels but few recognize. It refers to the body's rather spectacular ability to sense the position and movement of our body parts. We know, without thinking, precisely where our left foot is relative to the floor. This allows us to move our body without looking to see where we are. We can scratch our ear because we know where our ear is and where our hand is. When we sit for a prolonged period we can experience a foot "falling asleep." We know we have a foot but we can only guess where it is. There is great danger in standing and walking in this situation because it can easily lead to a fall and fracture.

Kinesthesia like the other senses does become less accurate over time. Old people often accommodate this change by adapting their gait to have less arm swing, shorter step length, a wider stance, and using vision to enhance the sense of position.

This style of walking is often stigmatized as "old" but in fact represents a major victory over time and changes in the kinesthetic sense.

Reflection: Sensations

In a journal or in conversation reflect on:

- What most surprised you about what you just learned about sensations?
- How will you apply this learning in your life and/or work?



Cognitive changes happen to all of us at every age. The trick is to actively compensate for the changes in ways that fit with how we want to live.





Minds

The culture of the western world has itself tended to set a high premium upon cognition; its established system of education, for example, is designed to differentiate people on the basis of their cognitive performance, while neglecting the sensibilities. It is also the case that in dementia the changes that occur in cognitive function (especially short-term memory) are relatively simple to measure, and these have provided a legitimate basis both for assessment and for drug trials.

- Tom Kitwood

Peaks and Plateaus

The mirror tells us that how we look changes over time. Our minds tell us that how we think changes over time.

The ability to think quickly and recall information, also known as fluid intelligence, peaks around age twenty and then begins a slow decline. So, the decline in our fluid intelligence begins at -- twenty.⁴⁹

The fact is that the way our minds work, and how we make use of those capacities, changes over time.

No matter our age, some mental powers are growing stronger, some are plateauing, and some are diminishing. There is no age at which we are at our peak in all areas.

- The ability to recognize faces peaks in our thirties.
- Short term memory peaks in the mid-twenties, plateaus, then begins to decline in our mid-thirties.
- Vocabulary peaks in our late sixties or early seventies.

When he was 78 years old, legendary psychologist B.F. Skinner delivered a lecture titled: "Intellectual Self-Management in Old Age." He offered his audience tips for clear thinking that he developed as he grew older: ⁵⁰

• On forgetting names:

"Appeal to your age . . . Or flatter your listener by saying that you have noticed that the more important the person, the easier it is to forget the name... If you are skillful at that sort of thing, forgetting may even be a pleasure."

• On forgetting ideas:

"The problem in old age is not so much how to have ideas as how to have them when you can use them . . . A pocket notebook or recorder helps to maximize one's intellectual output by recording your behavior when it occurs... In place of memories, memoranda."

• On forgetting what you were going to say:

"One solution is to make a note (perhaps pretending it is about what the other person is saying). The same problem arises when you are speaking and digress. You finish the digression and cannot remember why you embarked on it or where you were when you did so. The solution is simply not to digress -- that is, not to interrupt yourself."

 On avoiding mental fatigue: "It may be necessary to be content with fewer good working hours per day . . . Leisure should be relaxing. Possibly you like complicated puzzles, chess and other demanding intellectual games. If you want to continue to be intellectually productive, you must risk the contempt of your younger acquaintances and freely admit that you read detective stories or watch Archie Bunker on TV."

Cognitive changes happen to all of us at every age. The trick is to actively compensate for the changes in ways that match with how we want to live. People who lose an arm or leg are eager to be fitted with prosthetics that replace most, if not all, of the functions of the lost limb. We should be just as eager to embrace cognitive prosthetics that help people adapt their habits and environments in ways that work better for them.

Change happens and much more often that not -- change is good.

Neuroplasticity

The story of our unusually large and adaptive brains is closely connected to another important human innovation -- the ability to walk on our hind legs.

Walking upright required adaptations in the shape of the pelvis. In particular, it reduces the angle of the pubic arch. This had little consequence for men but, for women, it became a very big deal. The changes that made bipedalism possible also narrowed the birth canal and made childbirth much more dangerous and difficult.

Over time, a biological compromise was struck. While any mother can tell you that a newborn baby's head is big -- it is not as big as it might have been. In fact, human babies are born with less developed brains than those of other primate newborns. A newborn chimpanzee, for example, arrives with the skills of a sixth month old human infant. A human baby is born in an especially helpless state and must rely on intense support during infancy in order to survive. The newborn immediately puts brain growth into overdrive and head circumference increases rapidly in the first years of life.

Neuroplasticity: also known as neural plasticity, or brain plasticity, is the ability of neural networks in the brain to change through growth and reorganization.⁵¹

Between birth and two or three years of age, the number of connections in the brain explodes from 2,500 to 15,000 per neuron. The burst of brain growth in the first years causes many to speculate that brain plasticity is a feature of youth, peaking in the first few years of life and disappearing as we age. Folk wisdom contends that "old dogs can't learn new tricks."

New research, however, suggests otherwise. Brain imaging techniques reveal that human brains change -and grow new connections -- across the lifespan.

This lifelong neuroplasticity allows the brain to change and rewire itself in response to the stimulation of learning (and new experiences) at every age.

A fascinating study compared brain scans of London taxi drivers with those of London bus drivers.⁵² The main difference between these two groups is that taxi drivers must navigate London's maze of streets whereas bus drivers follow a limited set of routes. Researchers discovered that the taxi drivers have a larger hippocampus (this part of the brain processes spatial navigation and sensory information) than the bus drivers. The work of a London cabbie places great demands on the hippocampus, the work of a bus driver much less so. London cab drivers are living proof that our brains respond to challenges and grow in response to the demands made of them.

This growth can be seen in the brains of adults who master a wide range of new skills.⁵³ The amount and thickness of gray matter in our brains increases when we learn a new language or learn to play a musical instrument.

These changes are found in young adults as well as those living in the last decades of life. Our brains retain the ability to grow and change and this neuroplasticity is one of the most important assets we have when we seek to age magnificently.

It is outdated beliefs, not old brains, that are the most significant barrier to growth in late life.

The fact is that old dogs learn new tricks all the time. Science has revealed this ageist prejudice to be unfounded and damaging but it persists.

Predominant ageism researcher Dr. Becca Levy says:

"We found that older individuals with more positive self-perceptions of aging, measured up to 23 years earlier, lived 7.5 years longer than those with less positive self-perceptions of aging. This advantage remained

after controlling for age, functional health, gender, loneliness, race, self-rated health, and socioeconomic status."⁵⁴

The first step to changing our brains (and helping other people change theirs) is to change our minds about the possibilities hidden within old brains.

When we free ourselves from the idea that aging is a synonym for decline, we open the door to a rich potential for growth and development.

Gist

People of all ages are familiar with the experience of knowing a name, having that name right on the tip of the tongue, and --- not being able to produce the name.

The man who created the first English dictionary, Samuel Johnson, was familiar with this circumstance and the meaning that society attached to it. In 1783 he wrote:

"If a young or middle-aged man, when leaving a company, does not remember where he laid his hat, it is nothing; but if the same inattention is discovered in an old man, people will shrug up their shoulders, and say, 'His memory is going.'" Dr. Johnson couldn't know that, far into the future, neuroscientists would provide a surprisingly common sense explanation for this experience.

It turns out that younger brains are very good at quickly recalling bits of information (like a name or where you put your car keys) because their brains have a relatively straightforward "filing system." Old people, by dint of long experience, "store" memories within a more diffuse neural network.

The author of a 2011 study published in the journal "Brain Research" described this age-related change in memory this way: "We're all accessing the same brain networks to remember things, but we have to call in the troops to do the work when we get older, while we only have to call in a few soldiers when you're younger." Memory in old age is a complicated affair but holds within it the solution to some of the most puzzling mental phenomena associated with aging.

There is abundant evidence that mental agility declines with age. If that sentence makes you feel uneasy, recall that there is also abundant evidence that our maximum foot-speed also declines with time. While both of these things are true, only the former is stigmatized. Almost no one becomes anxious when they think about not being able to run the 100-meter dash in under 13 seconds.

Almost thirty years ago, Betty Friedan, in her book *The Fountain of Age* drew attention to research that asked "Are there virtues more precious than mere agility?" Ohio State psychologist Roger Ratcliff and his colleagues studied the mental agility of people of all ages for more than a decade. In particular, they explored the relationship between speed and accuracy.

One of their most important studies evaluated 300 subjects of varying ages as they watched symbols flash on a computer screen. The number of on-screen symbols was classified as either "small" (between 31 to 50 symbols) or "large" (between 51 to 70 symbols). After viewing each image, participants were asked to assign it to one of these two groups. While increasing age was clearly associated with decreased speed, the accuracy of the old subjects matched that of young people.

When Ratcliff's team actively encouraged the old participants to focus more on speed and not worry about accuracy, their reaction time matched that of the college students in the study.

The results of these kinds of studies represent a fusion of biology and culture. Age does "change our minds" but the meaning we assign to these changes is heavily influenced by the society in which we live.

The elders in the study understood that defects in accuracy are more stigmatizing than slower reaction times. Given this bias, a rational old man has every reason to avoid having people say of him, as they did of the man who forgot his hat, "His memory is going." Ratcliffe explains, "old people don't want to make errors, so what they do is adopt a more conservative decision criteria and that slows them down." Other studies have shown that, while young people are better at finding patterns in strings of numbers, the reluctance of old people to jump to conclusions help them out-perform young people when it comes to identifying strings that have no pattern.

Reserving judgement helps us avoid seeing patterns that aren't there. It is also the basis for some impressive mental abilities that only emerge as we grow older.

Day-to-day interactions with elders and research studies both suggest that aging increases our ability to extract the essential meaning of a story, event or social situation.

This ability is called "gist." Old people really do have more "gist power" than young people. It's true that having experience being in similar

situations in the past is part of the answer, but there is more to this story.

Gist:

the ability to extract the essential meaning of a story, event or social situation. The abillity to see the story behind the story.

As we age, our brains distribute memories across a wider range of brain structures compared to when we were young. Retrieving and using these memories therefore requires the simultaneous engagement of multiple cognitive systems. This more global activation helps old people see a "big picture" when young people are focused on the details.

The broader distribution of cognition that comes with age also makes it more likely that our effort to recall a specific word, number or name from memory may misfire. Neuroscientists call this the "tip-of-the-tongue" phenomenon. Our ageist culture leads regular people to call this a "senior moment."

People become anxious whenever an age-related word retrieval hiccup occurs. It often leads to a flustered confession of failure that emphasizes speed rather than accuracy. Also common are (sometimes joking) rehearsals of ageist stereotypes.

Over three quarters of Americans over the age of fifty report having experienced prejudice, discrimination and stereotyping based on their age. More than 65 percent report hearing, seeing or reading insensitive jokes about old age, aging or older people.⁵⁵

A better strategy for handling word finding glitches goes something like this. First, remain calm and carry on. There is no reason to panic and no cause for anxiety. This is normal.

Second, don't struggle to find the word you need. Instead, slow down and relax. This is an opportunity for you to widen the activation of your mind; who knows what new ideas and interpretations might emerge out of this process.

Third, if you are in the company of others, use this opportunity to dispel ageist stereotypes. Something like this will do: "People use to call them 'senior moments' but it's really more like 'mind expansion.' As we age, we use more of our brains, which helps us see general patterns more clearly, but it can also make retrieving a particular word more difficult. Anyway, as I was saying..." The loss of mental agility which comes with age pays a dividend. It gives us "gist" and with it the power to see and understand the story behind the story. That gift is worth vastly more than a youthful facility with names and numbers.

When we speak of the wisdom aging often brings to us it is really gist that we are referring to. The ability to see the story behind the story, the meaning concealed within the meaning, is what grants us wisdom.

A grandmother meets her granddaughter's new boyfriend. She knows he is not good for her. She also knows that nothing she can say will change the arc of the tragedy to come. When her granddaughter returns alone and broken-hearted she does not say "I told you so" because she knows this story. She knows that tears must flow and that the heart will heal. She knows that, as this young woman grows old, she too will learn to hear what has not been spoken, to see what has not been revealed.

Practice: Cognitive Timeline

- Think back over your life.
- Draw a timeline of your life from birth to now and mark along it points you noticed your cognition change.

For example: When did you first notice your gist growing? When did faces become easy to recognize; when did they start taking a little bit more time? When was memorization the easiest for you?

 Use this timeline as a reminder that our minds are changing throughout our entire lives.



Making friends takes time and effort, it requires energy. Losing a friend is a heavy blow and it drains energy from us. Sometimes, as we age, we stop investing in the process of making new friends.





Friends and Families

Each friend represents a world in us, a world possibly not born until they arrive, and it is only by this meeting that a new world is born.

- Anaïs Nin

Friends

Young people have friends. Old people have friends. Young people are friends. Old people are friends. Friendship is a human thing, not an age thing.

Everyone arrives in the world with a "friend funnel." When we make our first friend that friend goes into the top of the friend funnel. Soon we make more friends and they go into the friend funnel as well. The day we first lose a friend that friend falls out of the bottom of the funnel.

Some people take great pleasure in making friends. Others do so with an abundance of caution. Some lose friends often (think of a child of parents in the military). Others rarely let them go. Across the decades the number of friends in our friend funnel rises and falls based on how often we make, and lose, them. All of this happens without us thinking very much about it. For most people, friends are an ordinary part of life. Friends are just-- there.

Until they aren't.

Making friends takes time and effort; it requires energy. Losing a friend is a heavy blow and it drains energy from us. Sometimes, as we age, we stop investing in the process of making new friends. As we get old, we lose friends more frequently. When this happens, people are at high risk for waking one day and discovering that their friend funnel is empty. Alone. Friendless. Lonely.

But the friend funnel is still there. It can be filled again. Everything we know about normal human aging suggests that human connections are vital to well-being. New friends are good investments that pay dividends for years and sometimes for decades. Friend-making takes energy but it is energy well spent.

Friends make each other's lives better, and there is no reason to live without them.
Families

Feodor Vassilyev was born in Russia in 1707. He married twice. His first wife was named Valentina and during their marriage she carried 27 pregnancies to term and gave birth to 16 pairs of twins, seven sets of triplets, and four sets of quadruplets -- a total of 69 children.⁵⁶ Feodor and Valentina divorced and Feodor remarried. His second wife gave birth to 6 pairs of twins and 2 sets of triplets-- a total of 18 children. In addition to fathering 81 children, Feodor was known to work as a wheelwright and farrier.

Some people say children are a blessing, others disagree. Available research suggests that the size of the family children grow up in has a significant impact on their development and expectations. A study published in 1970 showed that the larger the family the more likely it was that parents would employ restrictive parenting practices and corporal punishment. Big families also make it more likely the parents will harbor ill-will toward each other and that the father will be the dominant parent.⁵⁷ Large families also make it more likely that adult children, who live nearby, will be available to care for their aging parents.

The United States is currently entering into an unrecognized but highly significant shift in family dynamics. Statistically speaking:

- The parents of the Boomers were born into large families and had large families.
- Boomers were born into large families but had small families.

The parents of the Boomers experienced old age largely in the context of early childbearing and a shorter expected lifespan.

Boomers enter into an old age defined by delayed childbearing, longer life expectancy and fewer adult children living nearby. Also, women (who have traditionally done most of the family caregiving) are more likely to be working outside the home. Boomers are also much more likely than their parents to have experienced divorce. There is evidence that divorce and remarriage weaken adult children's sense of obligation to provide elder care -- especially for fathers and stepparents.⁵⁸

When we consider divorce, low fertility, and rising life expectancy together we can forecast the future of family caregiving. Researchers used data from the Health and Retirement Study to estimate the number of Boomers who are likely to have a living spouse or an adult child within 10 miles. They found that "the number of 75-year-olds without a spouse could more than double from roughly 875,000 in 2010 to 1.8 million in 2030, and those without an adult child nearby could increase by a multiple of six during that time—from about 100,000 to more than 600,000."⁵⁹



Geriatrician Dr. Maria Torroella Carney coined the term "elder orphan" to describe people currently over 65 who are "single or widowed, have no children, at least in the area, and no support system."⁶⁰ In the past, the number of elder orphans remained relatively low because fewer people lived into old age, the rate of marriage was higher and couples had larger families.

The Boomers will likely become the first generation in human history in which a significant number of people will experience an old age that is not defined primarily through relationships with their children and grandchildren.

It is tempting to interpret this research in an exclusively negative light but that would be a mistake. While it is true that the old age that awaits Boomers will be much different from the one experienced by their parents and grandparents, it will also be better in many ways.

The most important differences relate to planning. The "greatest generation" was reared in, and raised, large families and could easily assume that family members would be close by and available to provide aid and assistance in their old age. Boomers can not, and should not, make the same assumptions. Instead, those growing old today need to think ahead and plan for a future that relies less on family caregiving and more on friends, neighbors, and paid caregivers.

Practice: Friend Funnel

Step 1: Draw a friend funnel

Step 2: Add in the names of important relationships in the top of the funnel and add names of lost friends out the bottom of the funnel.

Step 3: Around the outside of the funnel write the names of potential friends as well as strategies to fill your friend funnel. Think of ways to make new friends as well as ways to keep current ones.

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Widowhood means many things to many people. Statements about widowhood should be more general than specific.





Widowhood

The icons of the widow and the widower make up a binary pair, and each of them has their specific set of culturally different mythologies, shaped by their historical entanglement in societies...

- Nina Lykke

American English has a peculiar way of describing people who were married but whose spouses have died. A woman whose husband has died is a widow.

The word 'widow' comes from the Old English *widewe* which descended from an Indo-European root meaning 'be empty'. A recent widow described the emptiness this way, "One of the hardest parts of this journey, you never know when you'll be hit by feelings of loss. My life is fuller than it used to be. But my house is still empty of its other inhabitant. And it catches me by surprise sometimes."⁶¹

> Widowers marry again because it makes their lives easier. Widows often don't, because it makes their lives harder.

- Siri Hustvedt

A man whose wife has died is a widower. Interestingly, the word widower does not behave like the word widow. In her book *Language and Women's Place*, Robin Lakoff observed that we say that a woman was "widowed" last year. We do not say that a man was "widowered" last year. Then there is the matter of possession. The widow can be possessed by her dead husband. Mary is Fred's widow. A widower is not possessed by his late wife. No one says Fred is Mary's widower.⁶² We can add to these observations the fact that the word "widow" appears in newspapers up to 15 times more frequently than the word "widower."⁶³

> But she was a widow and she had to watch her behavior. Not for her the pleasures of unmarried girls. She had to be grave and aloof.

Margaret Mitchell, Gone with the Wind

Although widowhood (for widows and widowers) is based on a harsh biological reality (a spouse has perished) the experience is defined mainly in terms of local norms.⁶⁴

"Days are not the way they were when he was alive."

- Christine Thiele

Widowhood means many things to many people. Statements about widowhood should be more general than specific. While people generally believe that widows are more lonely and less happy than old married women there is evidence that indicates that the opposite might be true.

For the duration of Dennis's illness, I felt like Hester Prynne. I had the overwhelming sense that I was walking around with a giant 'FW' emblazoned on my shirt: Future Widow.

- Jenny Lisk

It is commonly assumed that widowers fare more poorly than widows in terms of health and well-being but it is also true that widowers are more likely to remarry than widows and that means widowers are less likely to remain widowers. Overall, the science surrounding widowhood is -- complicated.

All relationships begin, and end, in separation - James Hollis

Social relationships form a buffer against cognitive decline and the social isolation imposed by widowhood might contribute to increased risk of developing dementia. A 2018 study found that widowed men and women were 20 percent more likely to develop dementia than married people. There was no difference in the rates of dementia between married and unmarried groups. Widowed adults, in contrast, showed more cognitive decline than those who were unmarried or single, regardless of age, sex, socioeconomic status or history of depression. The loss of a spouse is a highly stressful life event which has a significant negative impact on the brain.

To mourn the death of an intimate companion or relative is a process immersed in affective embodiment, and to mourn the death of your beloved is profoundly entangled in bodily love and sexual desire.

- Nina Lykke

Studies on frailty suggest that marital status has a significant impact on the risk of becoming frail. Single men and widowers have been found to experience a higher risk of becoming frail compared with married men. In contrast, widows have a lower risk of being frail than married women.⁶⁵

Other research links frailty to loneliness and suggests an association between high levels of loneliness and the onset of frailty. Single men and widowers have the highest levels of social isolation and the highest risk of frailty. Interestingly, widows, as a group, may now have lower levels of loneliness than married women because many societies now encourage widows to widen their social circles while old married women are often expected to devote themselves to caregiving in the home.⁶⁶

Men should think twice before making widowhood women's only path to power.

- Gloria Steinem

The studies described above were mostly conducted in North America and Europe. Very different results might have been obtained if they had been conducted in Africa, Asia, or South America.

The most important thing to remember is that widowhood is mostly a cultural phenomenon and the impact on wives and husbands who become widows and widowers depends greatly on cultural beliefs and is only partially influenced by biological factors.

Reflection: Widowhood

In a journal or in conversation reflect on:

- How might the experience of widowhood be different if we had different and more useful language for it?
- What words do you think we need?
- Make them up and define them.

PART 3

Elderhood -Rising

The iron law of aging holds that every morning we wake up one day older. This is a fact of life and, as has often been observed, the option of not waking up holds little appeal for most people. The question, then, is not whether we will age, but rather:

What does aging mean to us? How can we find the virtues hidden inside its necessity?

For some, the answer lies in ever elusive "anti-aging technology." The belief that there must be a means of defeating aging drove Ponce de Leon through the swamps of Florida.

Today, we are bombarded with advertisements for "fountains of youth" that are guaranteed to keep us forever young.

Still, we age.

Old people who accept the negative stereotype of aging believe that decline is inevitable and therefore feel limited and do not achieve the potential that old age may bring. Because our culture does not value old age, there is often an unconscious assumption that for as long as possible, the older person should try to behave as if he or she were young; this assumption postpones efforts to deal with specific late-life developmental tasks.

- Lionel Corbett 67

There is an ancient understanding that aging is actually part of us, a vital part of our humanity. We grow old in large part because old people are valuable resources; they enrich us and our families and communities. Living, as we do, in a society that lionizes youth, many ask, "What are old people for?" The answer is both simple and profound:

"Old people are the glue that holds us together."



Aging is part of what makes us human. To live is to age. To live long is to age much. It is in our nature to grow old





Eos and Selene

Myths are stories that express meaning, morality, or motivation. Whether they are true or not is irrelevant.

-- Michael Shermer 68

Immunizations, better midwifery and relative peace have given more people the chance to grow old. It is the profound reduction in child mortality that is most responsible for increasing American's average life expectancy over the past century.

Old people do live a bit longer than they used to but humanity's maximum lifespan has not budged over the past several thousand years. Roman citizens who reached adulthood could expect to live another 50 years on average. The most famous historian of the ancient world, Pliny, devoted an entire chapter to long lived people. His list included a Roman Consul who lived to be a hundred, the wife of a politician who reached 103, and an actress who performed on stage after her hundredth birthday. ⁶⁹

The ancient Greeks were also accustomed to seeing old people walking the streets and shopping in the markets. They puzzled over the nature of human aging and grieved the inevitability of death. The Greeks told two stories that helped them understand what it means to grow old.

Eos

Eos, the dawn of the day, was the sister of the Sun and the Moon and mother of the four winds. Coming before her brother, the sun, she woke the earth each day with the morn's soft glow.

Early one morning she looked down upon the earth and spied Tithonus, a Prince of Troy. As dawn broke, the Prince emerged onto the city's thick, high walls and admired the morning light. Enthralled by his beauty, she resolved to make him her husband. There was, however, a problem.

Eos was an immortal and, for her, the whole of a human life being would be just a brief interlude. Propelled by her desire, Eos climbed Mount Olympus and stood before almighty Zeus. She asked him to grant her just one favor: would he make Prince Tithonus immortal?

Zeus thundered his answer, "No!" Eos fell to her knees. Zeus continued, "It is not right that a man should live forever."

But Eos would not be deterred. She begged, and pleaded, and shed a great many tears and finally, after seeing how much Eos loved Tithonus, Zeus granted her wish. "It is done," he said, "Now go."

The next morning when Tithonus woke, he felt -- different. He opened his eyes, slowly, and saw the goddess Eos standing beside his bed. She bent down and kissed him gently. Then she whispered in his ear. "I love you, Tithonus, and I want to marry you. I have gone to almighty Zeus and I have asked him to make you immortal. And he has done so." Tithonus sat up in bed, hardly believing his ears.

That very morning they departed Troy and went to Eos' magnificent palace in the East. Tithonus dined on nectar and ambrosia and was protected from all harm.

Their love deepened and grew stronger as the years passed. One morning, as Eos was leaving to bring a new day to the world, she bent down to kiss her husband and found, for the first time, a gray hair. Before long, every hair turned gray, then white and Tithonus got old. More time passed and he got much older. Soon he was the oldest person in the world. Then, he got older.

As the decades passed Tithonus's once powerful limbs shrank and shriveled. His once booming voice faded into a chirp. He no longer spoke to Eos in a language she could understand. Her heart was broken and, at long last, she took pity on her lover and turned him into a grasshopper.

And that's where grasshoppers come from.

The ancient Greeks told a second tale about aging and mortality. This one concerned Eos' sister Selene, the Moon. She shared her sister's fascination with mortal men. No one knew why.

Selene

One night long ago her pale white light fell upon a handsome young shepherd named Endymion. She fell instantly in love with him and was determined to make him her own.

Remembering the hard lesson learned by her sister Eos, Selene went to seek a favor from Zeus. "Oh powerful Zeus, I beg of you two small favors. Would you grant my lover Endymion immortality -- and eternal youth?"

Zeus boomed out his answer, "It is not right that a man should live forever."

But, when it comes to love Greek goddesses could be very determined and Selene would not relent. Finally, Zeus agreed and the gift of youthful immortality was granted.

The next night the Moon descended from the sky to claim her prize. As she approached him she was aquiver with anticipation. He was so fine, so handsome, so young, and she was certain that he would stay that way.

When she reached her lover she found that he was asleep. Selene touched him on the shoulder but he did not stir. She did everything in the power of a goddess to rouse him but Endymion slumbered still.

It was then that she realized that Zeus had awarded her lover not one, not two, but three gifts-- immortality, eternal youth and perpetual sleep. He could not die, he would not grow old and he would dream for an eternity. Eos and Selene both came to grief, and the lives of their lovers were ruined because they did not understand a fundamental truth of human existence.

Aging is part of what makes us human. To live is to age. To live long is to age much. It is in our nature to grow old.

Only among the divine may immortality be united with the vitality of youth. Tithonus, husband of the dawn of the day, aged but could not die. In time he ceased to be human. Endymion paid a terrible price for his youth. His power to act was taken, leaving him lost in a world of dreams and murmurs. This, the story makes clear, is very close to having no life at all.

The modern world seems to have forgotten these lessons. Now, instead of beseeching Zeus, it is the
power of technology that we approach on bended knee. Purveyors of "hope in a bottle" tells us that we can be young forever -- for just \$29.99.

Zeus understood what science does not, that old age is woven into the fabric of our being. We are not, and will never be, gods. Instead we are offered the opportunity to grow wise with time. Aging is different and far better than becoming a grasshopper or losing ourselves in a dream that never ends -- and it is our duty to make the best of it.

Reflection: Immortality Myths

In a journal or conversation reflect on:

What is one way you have
'beseeched Zeus' to stop aging?
What happened?



We are what we are because of the changes that grandparenting made possible





The First Grandmother

Every house needs a grandmother in it.

-Louisa May Alcott

It is three o'clock in the morning in Eden Prairie, MN. Inside the master bedroom of a comfortable suburban home, a man and woman sleep peacefully. The phone rings -- once.

An excited voice proclaims, "It's time; the baby is coming." Soon the man and woman will become grandparents. The bags are already packed. They will be on the first flight out in the morning. Nothing could keep them from being there. Before the sun sets again, they will be a thousand miles from home, cradling a newborn in their arms.

Without being asked, they instinctively help their daughter. Meals are cooked, errands run. They dote. None of the participants marvel at this, no one wonders why. It is as natural as drawing a breath. The grandparents have come to help with the baby. This is how it is meant to be.

Long ago on the plains of Africa, a child cried out from hunger. Her mother recently had given birth and was distracted by the needs of her helpless infant. The delivery was long and difficult and much blood was lost. The mother barely has the strength to nurse her infant. She can neither feed nor care for her older child.

On this day, in this place, a miracle occurs. An old female, the mother of the new mother, the grandmother of the crying child, is moved to act. For the first time in the history of life on Earth, a grandmother intentionally shares food with her grandchild. Thus was the first tentative step taken down the long road that led to the development of the human being.

No one knows why the first grandmother helped feed her grandchild. We do know that this simple act put a virtuous cycle into motion. The first grandmother created a new way of being a family and she increased the reproductive success of her family. The innovation spread far and wide and is now practiced by almost all human families.

Almost all mammals share food and support between two generations (parent and offspring). Humans share food and support between three (and sometimes four) generations. This was a bold new strategy. It was a gamble and it paid off magnificently.

We are what we are because of the changes that grandparenting made possible. There is reason to believe that our large brains developed in tandem with our exploration of old age. From birth to teenage years the human brain quadruples in size.⁷⁰ This exorbitant growth is only possible because humans practice an extended and extensive form of parenting. But there is more.

The deliberate, universal, enlistment of grandparents into the work of rearing the young stands as a defining characteristic of Homo sapiens. It is hard to overstate the advantages that accrue to the young when there are two generations of adults investing in their safety and well-being.

The extra food and attention grandparenting routinely provides significantly improves survival of human children. Grandparents (especially grandmothers) have been at work reducing child mortality for countless generations.

An international conference of anthropologists, sociologists, and ethnologists explored how universal, and powerful, this impulse toward grandparenting has been. At an international conference on grandparenting, they presented studies from cultures as diverse as eighteenth-century Japan to rural twentieth-century Gambia.

University College researchers in London found that in Gambia, infant mortality rates dropped by 50 percent if the maternal grandmother was present in the household. In India, a beneficial impact on child mortality was also found, as well as an increase in fertility among the mothers if their own mothers (the maternal grandmothers) were living in the household.

Research to date has just begun to explore what these matriarchs do that reduces infant and child mortality and increases the fertility of their daughters. Surely their contributions of time, energy, and material resources across generational lines are important, but that is not all there is to it.



Humans living in active multigenerational families and communities also benefit from the intergenerational transmission of affection. Regular people refer to this process as "spoiling the grandchildren." Scientists call it gentling and it has been observed among lab rats:

"When female rats are handled gently during their infancy and early life, they appear at maturity less emotional, more ready to leave their cages, and less fearful of strange stimuli than do other rats."

Being handled gently when we are young is good for people-and also good for rats.

"When these rats become mothers, their young are... of a different temperament as the result of the early experiences of their gentled mothers, but, when these young bear babies their patterns of mothering are also different from what they would have been normally."

In other words, when grandparents "spoil" grandchildren they are also helping make those grandchildren better parents. But here is the most amazing thing. Spoiling the grandchildren can also improve the well-being of your grandchildren's grandchildren. Because the effect of the gentling that mothers received becomes apparent in their grandchildren, this has been called "the grandmother effect."⁷¹

Humanity would resemble its primate cousins much more closely if mothers had retained sole responsibility for all the emotional and nutritional needs of their children. The first grandmother attended to the cries of a hungry child, her grandchild. In doing so, she increased the reproductive success of her own daughter. Over time, those families that were blessed with old females inclined to give this kind of assistance grew in number and power. Families that could not master this strategy were left behind.

Reflection: Gentling

Think about who played the role of 'grandmother' for you. Who gentled you?

Write a story of your own gentling or gentling you have given to another.

As you write be sure to include what happened as well as how you felt at the time.



The value of elderhood lies in the fact that it offers us entry into life beyond adulthood.





Eldertopia

The death of [an] old person is like the loss of a library.

- African proverb

Grandparenting is an important part of what makes us human, but there is more to this story. Millennia ago, people began to use old people as reservoirs that could store, refine and transmit culture. Much of this knowledge had to do with how their people chose to live, what they believed, and how they managed the transition from one life stage to the next. In many traditional societies, old people were the custodians of the rites of passage that provide social identity and prepare the people for what comes next. Before Africa was colonized by Europe, "initiation" was one of the most prominent ways education was provided to the young. In many cultures there is a second initiation that becomes available to a person who has lived life as an adult in the community. This ritual welcomes old people into the Elders' circle.

Our ageist society equates aging with a tragic loss of youthful vigor and makes it hard to see old age as a pathway to continued growth and development. We celebrate the admittedly exciting virtues of youth and tend to overlook the contributions elders make to their families and communities.

There is a miracle right in front us and ageism hides it from our sight. Humans are the only creatures on Earth that specifically and energetically protect, sustain, and even nurture their elders.⁷² People protect elders because an elder is different from an adult. The value of elderhood lies in the fact that it offers us entry into life beyond adulthood.

American society defines the changes associated with normal aging exclusively in terms of decline. In fact, aging-related changes in strength and stamina prepare us for a new way of living. While it is true that aching joints and fading eyesight come with age, we are free to decide what these changes mean to us. The meaning we assign to these changes actually matters more than the changes themselves. In fact, for most of human history people have understood a long life to offer a form of preparation for a new role as an elder of the community.

To grow old is an extraordinary achievement and people and countless

cultures have made use of longevity by creating distinctive social roles for old men and women.

Menopause, which might seem to be a purely biological phenomenon, eases the transition to elderhood by ensuring that old women cease ovulating. No longer in direct competition with the younger women around them, they are able to inhabit distinctive new social roles.

Likewise, age whittles male strength and aggressiveness and, with time, ensures that the old cannot overthrow the young by force. Secure in this knowledge, adults in traditional societies have long allowed those who reach an advanced age to "opt out" of the relentless maneuvering for prestige and power.

Being freed from the struggle for dominance in the adult hierarchy

while still receiving the life-sustaining support and protection of the community is the foundation of our longevity.

The genius of human aging lies in its extraordinary ability to transform inevitable physical decline into something new, a reinvention of the self. Aging opens a portal into freedom from the burdens of adulthood. Human societies have long worked to match the body and mind of the old person with a distinctive social role.

Every tool must be properly fitted to its purpose and, while it is possible to cut a bouquet of flowers with a chainsaw, a pair of shears will do a much better job. Elders have long been granted social shelter in the last decades of life, not as an act of charity, but because old people can be very useful. Elderhood came to life when elders became the bearers of human culture. Elders excel at retaining, refining, and transmitting lessons on living. They can teach us how to live, if we are willing to learn.

The physical decline that accompanies aging acts to align young and old. Indeed, an old man capable of stalking, killing, and butchering a mastodon would have little inclination to spend hours doting on grandchildren, telling them stories and instructing them in the ways of their people. An old woman capable of producing young of her own would be less inclined to pour time, love, and attention into the lives of her grandchildren. The physiological changes that accompany old age actually prepare us for a socially productive old age.

Humans have evolved a three-generation pattern of interdependence that makes a virtue out of the necessity of aging. A child who is "gentled" by his elders is equipped with sophisticated cultural and technical tools for living.

A rich, supple culture helps create the social surplus that is needed if old people are going to be sustained as their vitality wanes. The children grow into successful adults.

When adults can no longer fulfill the duties of adulthood, they are allowed to put down those burdens and enter into the old age their culture has prepared for them.

Old people tell the stories and pass on the knowledge to young people who use these insights to organize their lives and get the food, clothing and shelter they need.

Although the particulars have been combined and varied in a myriad of forms, the essential elements of this cycle have propelled the development of human culture for at least 40,000 years. This cycle of cultural evolution can be seen in graphic form.



The Great Wheel

- Support adults provide to elders
- Assistance elders give to adults
- Gentling and acculturation of children by elders
- Assistance and affection given to elders by children
- Participation in work of adults by children
- Food, shelter, clothing, and affection provided to children by adults

Eldertopia:

A community capable of creating well-being for people of all ages by strengthening and improving the means by which: (1) the young protect, sustain, and nurture elders, and (2) elders contribute richly to the well-being of the young.

Without old age, Homo sapiens would have been confined to the typical mammalian two-generation social structure. We have used our post-fertility longevity to enlarge the range of human possibility and create a complex web of relationships that bring unprecedented benefits to the community as a whole. The social role of "elder of the community" is a brilliant extension of the family-specific role of grandparent. Translating the core elements of grandparenting from the biological to the cultural sphere sparked explosive cultural change. Cross-generational support, no longer confined to simple assistance with food and protection, was stretched to include the distinctly human act of communicating meaning.

There is strong (though not universal) support for the idea that human cultures evolve over time and are themselves subject to a form of natural selection. In that context, cultural traits that provide flexibility and adaptability are likely to succeed and spread.

Old age and elderhood have spread from their origin to every point of the globe because societies that embrace and rely upon this innovation are more successful than those that do not. The better a culture becomes at fostering the refinement and expression of its own repository of knowledge, the more complex the strategies it can deploy in pursuit of success.

The single greatest achievement in the history of humankind is our discovery of the virtue hidden within the necessity of aging. The historical glare created by the achievements of adults often conceals this truth. We remember Caesar, not Caesar's grandmother. But what would Caesar have been if he had been born into a world without elders?

Adults and adulthood obscure but in no way diminish the contributions elders have made to our world. Old age is far from a forgettable vestige trailing after the bloom of youth. It made our world. It is the greatest of all human creations, the mother of all our inventions.

Reflection: Defining Life Phases

In a journal or in conversation reflect on:

- How would you define Childhood?
- Adulthood?
- Elderhood?
- What qualities do they share, how do they differ?

PART 4

K

Resilience

Normal human aging is a decades long education in the art of living with slightly less reserve capacity than we had the year before.

Drivers understand the concept of "reserve capacity" in terms of "pep" or "pick-up." We feel it when we drive a car that can pass another car while going uphill. Sports cars are loaded with reserve capacity while subcompacts struggle to keep up with traffic. In gerontology we call the ability to respond to a challenge with a burst of energy "resilience."

The diagram on the next page illustrates the reserve capacity available to us at different ages. Each circle is bounded by a line that represents the reserve capacity available in a given decade of life. People in their thirties have plenty of get up and go. People in their nineties also have resilience, just not as much as people in their seventies. People in their seventies have resilience, just not as much as people in their fifties. And so on.



Now look at the arrows in each of the boxes. Each arrow represents an environmental stress capable of pulling the body away from a healthy equilibrium. This equilibrium is known as homeostasis. The longer the arrow, the farther we are from homeostasis and the greater the stress we experience. Let's suppose that, from shortest to longest, the arrows represent the following situations:

- Catching a cold.
- Falling while climbing out of the bathtub.
- Contracting influenza.
- Having a major heart attack.
- Being run over by a bus.

The stress of being run over by a bus or catching a cold is the same for people of all ages. The difference lies in the reserve capacity available to pull us back to homeostatic balance. All of us rely on our reserve capacity to overcome those illnesses and injuries and return to balance. Little things, like catching a cold, push us a small distance from the center. Serious illnesses and injuries push us far away from the center. Comic book superheroes are "super" mainly because they are endowed with a tremendous reserve capacity. Sure, Lex Luthor might throw Superman into the sun but-surprise!-- he will soon be back on the job with nary a blister. For the rest of us, having a reserve capacity that is a little bigger than last year is its own kind of superpower. The more resilient we are, at every age, the more serious the illness or injury we can overcome.

The oak fought the wind and was broken, the willow bent when it must and survived.

- Robert Jordan, The Fires of Heaven

One reason old people have a higher death rate than young people might be that they live much more dangerous lives. We could imagine old people earning their higher death rate by driving at top speed up the Pacific Coast Highway, or skydiving while blindfolded. In fact, old people generally know better than to do those sorts of things. The real reason the death rate rises as we age is that, living with a smaller reserve capacity means that, on any given day, we are more likely to encounter an illness or injury that pushes us beyond our reserve capacity.

On an average day, having a slightly smaller reserve capacity than we had a year ago matters little. We go about our affairs in a comfortable manner and remain close to homeostasis. All is well. The thing is that not every day is normal. On bad days we get stressed by our environment. On terrible days those stresses can push us to the edge of our reserve capacity. On the last day of our life, an illness or injury pushes us across the dotted
line. Those who cross the boundary defined by their reserve capacity -- leave the land of the living.

When people learn about the relationship between reserve capacity and the risk of death the first question most ask is -- "How can I increase my reserve capacity?" After all, the more resilient we become, the longer we are likely to live and the happier we are likely to be. The secret of a longer, happier life has always been right in front of us.

Mental and physical resilience is composed of three simple things:

Strength Purpose Belonging There is no magic pill, potion or lotion. There is no fountain of youth.

The answer lies within us.

We can commit to the work we need to do to increase our strength, purpose, and belonging. These virtues pave the way for greater resilience and resilience is the key to a life worth living. Let's get started.





From the wispiest willow to the mightiest lion, every living thing can boast of some kind of strength. Too often, old people forget that they can nourish, nurture and increase their own strength.





Strength

We must be careful not to judge an older person as aging successfully only if he or she maintains midlife levels of activity that are socially conventional. To do so would claim that aging itself does not have a legitimate tempo and legitimate types of activity.

-Lionel Corbett

There are as many kinds of strength as there are colors in the world. The most vivid and vibrant forms of strength are closely associated with "bodily power, force, and vigor." When we hear the word "strong" our first thought is most often of muscles. More subtle forms of strength, like persistence and fortitude in struggle, appear muted, like pastel colors. Every form of strength, like every hue, is potentially beautiful but that beauty depends mostly on context.

When the context is "independence" muscular strength has an important role to play. It takes muscle to live where and how we choose. Muscular strength protects our independence and independence makes the development of more subtle forms of strength possible.

Maximum physical strength normally peaks before we reach our 30th birthday. People in their 40s are rarely able to lift more weight or run faster than they did when they were in their 20s. Even as our maximum strength recedes behind us, aging is equipping us for the task of cultivating optimum muscular strength.

Maximal strength: our ability to lift, bend or throw heavy objects -- often made of iron.

Optimal strength: evaluated according to our ability to live the life we have chosen for ourselves.

The optimal strength for a person doing subsistence farming at high altitudes will be different than the optimal strength for a poet living and working in a beachside resort town.

As we get older, and begin to discover what sort of life we want to make for ourselves, we can also begin to catalog the kinds of muscular strength we will need to live that life.

Research suggests that the more time we spend using our strength to do what we love best, the less likely we are to experience worry, stress, anger, sadness and even physical pain. It has long been observed that strength leads to strength and getting stronger is associated with significant benefits.

Stronger old people:

- Are able to do more for themselves.
- Are less likely to experience injuries.
- Are more likely to maintain a healthy body weight.
- Have stronger bones and tendons.
- Show greater confidence and feel better about themselves.
- Experience a sense of accomplishment.

Making use of our strengths also leads to greater altruism. In other words, the strengths-based approach to life can lead us all toward greater happiness and well-being.

Before we can get stronger we must overcome ageism and conquer the fallacy that old people are, by definition, weak.

In fact, decades of research have shown that old people build muscle mass and gain physical strength when they use their muscles on a regular basis. Greater muscular strength is also associated with greater mental and emotional resilience. It turns out that old people are very much like young people. Both groups have a robust capacity for growth and change. Both groups want to live life on their own terms. Both groups want to live in the place and manner of their own choosing and engage with the world in ways that matter to them. Both groups need strength to make those things happen.

"Be faithful in small things because it is in them that your strength lies." -- Mother Teresa

From the wispiest willow to the mightiest lion, every living thing can boast of some kind of strength. Too often, old people forget that they can nourish, nurture and increase their own strength. Physical strength is the foundation on which resilience is founded.

When it comes to muscular strength in the later decades of life, there are four ways of being strong that matter most.

Posture:

Many people confuse bad posture with old age and good posture with youth.

Bad posture develops gradually but is not a sign of normal aging. Good posture is an endowment. It helps us feel better about ourselves, move more freely, and experience less pain and stiffness.

Older politicians have long recognized this fact and work constantly to display good posture while in public. We choose what kind of posture we will have and we live with the consequences of that choice. Like any endowment, good posture is the fruit of persistent effort. It never happens by accident.

Balance:

Balance is one of those things we don't notice until it's gone. It combines poise (how we carry ourselves) with good posture and a robust sense of proprioception. Balance is not one thing, it is many things but all of them rely on the stability and strength of the muscles in our body's core. When these muscles lack strength, excessive loads can be placed on the low back, hips and knees and can cause misalignment, discomfort or injury. We also become much more prone to losing our balance.

Good balance reduces the risk of falling but even people with good balance can begin to fear falling and when they do, they begin to self limit their activities. Playing it safe in this way can prevent falls but this protection comes at a terrible cost. As people restrict their mobility, the core muscles weaken, bad posture habits take hold, and balance is diminished. This further loss of balance increases the fear of falling and they limit their activities even more. The result is a self-stoking cycle that can lead to the loss of one's ability to walk even though no specific medical issue has occurred.

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Grip

A fascinating study of grip strength among girls living in Africa found that those with a stronger grip had a reduced risk of experiencing sexual assault. It is not clear why increased grip strength has this protective effect.

Although the fact is little recognized in the medical profession, grip strength is also a leading indicator of health and longevity among old people. A 2014 study published in the journal PLOS ONE found handgrip strength was related to people's future mortality, disability, cognitive decline, and the ability to recover from hospital stays. A strong grip is vital to one's ability to lift, hold, twist, grab, carry, open and squeeze objects encountered in everyday life. It is essential to independence.

Stamina

In 1936 Olympian Jesse Owens became the first African-American athlete to grace the cover of a Wheaties box. Generations of Americans grew up being told that "You better eat your Wheaties!" Advertising executives connected stamina to their cereal's five essential vitamins.

Biologists use the word "stamina" to refer to the ability of an organism to exert itself and remain active for a long period, as well as its ability to resist, withstand, recover from, and have immunity to trauma, wounds, or fatigue. All living things possess stamina -- even those that don't eat Wheaties.

On a more personal level, people often think of stamina in terms of having the strength they need to keep going until their day's work is done. In other words, old people do not need nor do they expect to have an Olympian's level of stamina. People want to have the energy they need to live the life they want to live. Building strength enhances stamina; no surprise there. Having greater stamina is useful to people of all ages. But there is another way around this mulberry bush and it is well known to many elders.

Imagine if every morning of our lives, we woke to find a bag of gold coins on our bedside table. What if those coins represented that day's supply of energy -- our stamina.

When we are young, the bag bulges with coins and we spend them with wild abandon. The following morning the bag is full again! As we grow old, there are fewer coins and we begin to think about how they might best be spent. We can increase our stamina by learning to spend these coins as wisely as possible. Wasting coins on people or activities that mean little to us means we have few left over for the things that matter most.

Developing greater stamina requires us to understand both strength, and purpose.

Khalid the Kind

Long, long ago, a lone traveler set out to cross the Sahara Desert, heading north from Timbuktu. Days passed and he made steady progress on the road to Marrakesh. On the eighth day of his journey, the traveler was set upon by a ferocious sand storm. The wind lashed him without mercy and confused his sense of direction.

When it was over, he was lost. Dunes of pitiless sand stretched in every direction. There was no shade and he had lost his supplies in the storm. Soon his tongue began to swell and his lips cracked; every ounce of his being cried for water. Vultures circled slowly overhead. The man wandered aimlessly until hope deserted him; then he fell to his knees, ready to die. The traveler did not know it, but just over the Eastern Dune lay the oasis of Khalid the Kind, known throughout the Sahara as the possessor of the finest, purest water and the most generous heart the desert had ever known. Khalid the Kind regularly rode the dunes in search of the lost and the forsaken.

Just as the traveler prepared to close his eyes for the last time, the desert silence was broken by the plodding sounds of a camel. The camel and rider were soon at his side. Khalid gathered up the prostrate traveler and rode swiftly home.

Khalid offered the traveler water and the man drank deeply. Again and again he drank until his thirst had gone. At last the traveler spoke. "Great is my fortune to have encountered Khalid the Kind when Death held his cold hand upon my throat." "It was the will of God that you should live, I am but His poor servant," Khalid responded. "Now you must drink more for truly you have not taken enough."

"I would drink more of water but I am full; now I feel weakness and a great hunger, might I have some food?"

"Food, how can you think of food?" Khalid cried. "It is water you need now. Not so long ago you were nearly dead of thirst. So drink and drink deeply."

"Khalid, I am in your debt. But I have taken my fill of water and now I must eat."

"I think the sun has addled your brain, my fine friend. You must drink more water or Death will claim you yet." The traveler turned his head away when Khalid offered him the ladle. Water spilled to the ground. Convinced that his new friend was insane for refusing the water he must need, Khalid swept him up from his resting place, and waded into the spring with the man in his arms.

Again and again he dunked his new friend's head into the water. The man choked and fought for air, swallowing great gulps of freshwater. Khalid was pleased.

When the traveler began to weaken, Khalid redoubled his efforts, holding the man under for longer periods to ensure that he would take water. Again and again the poor man was submerged until his strength waned to nothing, and Death did take him. The traveler died in Khalid's powerful embrace. Tears streaked the loving face of Khalid the Kind. "If only he had drunk a little more, he might have lived!" The man's body was buried near the Oasis. His was not the only body laid to rest by Khalid the Kind. "Water, they must have water," he muttered as he mounted his camel and headed out into the desert heat.

Reflection: Khalid the Kind

In a journal or in conversation reflect on:

- Who was stronger, Khalid or the Traveler?
- What happens when we confuse what we have with what people need?
- When is generosity most useful? When is it harmful?
- Is Khalid's grief justified?



In essence, aging calls on us to plant trees in whose shade we will never sit.





Purpose

He who has a why to live for can bear almost any how.

- Friedrich Nietzsche

Our society is very clear about the purposes that are considered most appropriate for adulthood.

Most of us are encouraged to grow up, get a job, get married, start a family, buy a house, and save for retirement. Many people follow this path and find joy and satisfaction along the way. Others chart their own path.

Growing old leads many people to ask new questions about their place in the world and what matters most to them. As the pendulum of life swings from doing to being, new possibilities for living with purpose begin to emerge.

Being yourself requires a continual refashioning of the relationship between who you were, who you are, and who you will become.

For millennia, the answer to "What are old people for?" has been so obvious as to make the question irrelevant. This is no longer so.

We live in an age that grants the boon of long life to millions while also rendering the old irrelevant in new and disturbing ways. Throughout human history, the value of old age has lain in its unique capacity to serve the needs of people of all ages. When we think of caregiving we think of how young people serve and support elders. Rarely do we include the ways elders serve and support the young.

This is not because of ill will but rather because our culture has defined aging as a process of decline that includes only indignity and loss. Young people want to help old people but too often damage elders' dignity in the process. Old people, for their part, are encouraged to accept assistance gratefully and quietly.

Living with purpose requires us to enlarge our circle of compassion at every age.

In essence, aging calls on us to plant trees in whose shade we will never sit. It is said the highest form of compassion is to give of ourselves without the expectation of return. Old age gives license to us to care more for others than we may have during the hustle and bustle of our adult years.

Almost all young people benefit at one time or another from an elder's thoughtful guidance and support, offered to them without cost or reservation. The passage of time ensures that when these young people become old they will have the opportunity to repay those gifts in full.

The Three Sisters

An old woman and teller of tales once said..."Listen well, my children, and I will tell of the day the Earth was born."

As the joyous occasion approached, her two sisters, we call them the Moon and the Sun, glowed with joyous anticipation.

The Moon was the elder of the two, and like the hair on the heads of the oldest people, she shone with the dazzling brilliance of silver.

The Sun shone as brightly as her sister, but she gleamed with the golden glow of youth.

They talked excitedly of their hopes for their sister, who would surely outshine them both. Oh, the glory of it all! Together, the three Sisters would illuminate the farthest corners of the heavens with their unquenchable fire.

Sadly, it was not to be. The Earth was born dark and cold. She could not see, nor could she speak. The Sun and the Moon gave themselves over to their grief, and for many ages, they wept for their newborn sister. Their tears filled the seas, the lakes, and the rivers. Even to this day, the Sun mourns the Earth's grim fate. The tears she sheds make the rain that falls upon our heads.

The sisters feared the Earth would be frightened in the darkness that surrounded her, so they resolved to shine upon her and keep her warm for all time. For many ages, the Earth found mute comfort in her sisters' loving gaze. During the day, the Sun cast a gentle glow upon her face. At night, the Moon shone upon her with equal brilliance. Together, they held the darkness at bay.

In time, the Sun began to worry about the Moon. It was clear to see that her rays no longer cast the golden light of youth. The Sun wondered if the strain of caring for their sister would overcome her. The thought made her tremble in fear. If the Moon left her, she would be alone in the sky forever.

Perhaps, she thought, the Moon would benefit from a rest. She told her sister of her concerns. The Moon said, "I am honored by your concern, dear Sister, but do not fear. My light is silver, yours is gold, but the love I feel for our dear sister gives me strength. I am well." Those brave words failed to reassure the Sun, and her anxiety grew with the passing of the ages. Repeatedly, she pointed out her sister's frailties and beseeched her to rest. Finally, the Moon relented and honored her sister's wishes. The Moon quenched her fires, and darkness fell for the first time upon the face of the Earth. Keeping her promise to the Moon, the Sun shone with a doubled brilliance. For the first time, her rays burned her little sister's face. This is how the great desert on the far side of the mountains came to be.

While the Moon rested, the Sun grew weary. Shining so brightly was more difficult than she had imagined, and she was lonely. She missed her older sister's satin words of wisdom and encouragement. Still, she endured. She was proud of the vigor that let her do the work of two.

Finally, the time came to wake the Moon from her slumber. The Sun called to her once, but she did not answer. The Sun raised her voice and called again. The Moon remained silent. The Sun called a third time, this time with all her might. Her voice shook the cosmos, and its force shattered her rays into little pieces. These specks of light fled in terror from her mighty voice and did not stop until they had reached the farthest corners of the heavens. This is how the stars came to be.

At last, the Moon responded. Her voice rattled and cracked. The Sun had to strain to catch the words. "Let me rest, sister, let me rest. I am old, I am tired, and I will shine no more."

Despite the Sun's desperate pleas, the Moon fell silent and was never heard from again. Shame for what she had done filled the Sun. This is why sunrises and sunsets are crimson. The Sun is recalling her great shame.

Now, the Sun is alone. During the
day, she pours her light and heat down upon her little sister, the Earth. At night, she shines upon her older sister, the Moon, as she tosses and turns in her sleep. That is why the moon waxes and wanes in the night sky.

The burden the Sun carries is heavy. She carries it alone, and she will carry it forever. Still, even the mighty must sometimes rest. For this reason, the winter is cooler than the summer.

That's the way it was and that's the way it is.

Reflection: The Three Sisters

In a journal or in conversation reflect on:

- Why did the Sun take over the Moon's burden?
- How did this change the Moon?
- What did the Sun learn from what happened?
- Have you ever relieved another's burden in a way that emphasized your strength and their weakness?
- It is said that sometimes we care most when we turn our backs to another person. What does this mean?



Aging is a team sport and the best way to win is to play with a team you love, and that loves you.





Belonging

You are only free when you realize you belong no place—you belong every place—no place at all.

The price is high.

The reward is great.

- Brené Brown

Loneliness and belonging are two sides of the same coin.

Loneliness: pain we feel when we seek connections with others but can not find them.

The antidote to loneliness is companionship.

Belonging: the comfort we feel when we know that we can rely on others, and that others can rely on us.

Belonging happens when "me" becomes "we."

The National Council on Aging estimates that the mortality rate for old people who feel connected to others is half that of those who suffer from loneliness. The health risk associated with social isolation is comparable to drinking six alcoholic beverages a day and twice that of obesity.

In the nineteenth century, living to an old age was rare—but one's place within family and community was secure. In the twenty-first century, living to an old age is commonplace—but one's place in family and society is profoundly uncertain. The internet is a modern wonder and it makes information available at greater speed and less expense than ever before. Non-digital virtues such as faith and friendship, however, cannot be fully experienced online.

To love and be loved, to cherish and be cherished, to hurt and then to be healed—none of these gifts can ever be fully digitized. Technology is, and will remain, the friend of longevity (it is largely responsible for sustaining the worldwide age boom), but it has not been an ally of true human connections.

Belonging creates resilience because, as Walter Payton observed, "We are stronger together than we are alone."⁷³ Payton, an All-Pro running back, understood what many old people have forgotten. We are social creatures and it is not natural, normal or healthy for us to be alone. This 277

common sense observation conflicts with the nearly religious devotion many old people have to "going it alone." In fact, aging is a team sport, and the best way to win is to play with a team you love, and that loves you. The loser's game is to play alone and hope that somehow time will allow you to live the way you did forty years before.

The Treasure Seekers

Long ago, when The People were still new to this world, there was a small village high in the mountains. Five towering peaks surrounded it. The People called the village Neekells, which means "in the palm of the hand of stone."

For all of its beauty, Neekells had poor soil, and its air was thin and cold. It was only the stubbornness and unceasing hard work of the few dozen families who lived there that kept them from hunger and cold.

There were stories of an old time, a time when Neekells was a thriving city, but that was long ago. Those were the days when miners swarmed the five peaks. They burrowed deep into the mountains, and the stone rewarded their labor with gold, silver, and jewels. Now all that remained of those times were the stories and the town hall. It was the most beautiful building in Neekells, and The People loved it.

One year, a disastrous summer storm swept down from the mountains. Wind, rain, and hail flattened the crops and tore the roof off the town hall. The rain poured into the gaping hole and flooded the building. Unable to repair the damage, The People gathered together to tear down what remained of their hall. They pulled down the walls and cut up the timbers, which they hoped to use for their fires during the long winter that lay ahead.

At the end of the day, as they gathered for their meager supper, one of the children picked up the hammer her mother had been using and began to pound on the foundation's cornerstone. The stone rang with a hollow note. How could this be, The People wondered as the sound echoed through the ruins. Seizing a sledgehammer, one of the men split the stone open. Inside lay a letter, a map, and a compass. The letter was yellow and brittle with age. The man opened it carefully, and his eyes widened as he read it aloud.

"To The People of Neekells," he read. "We, the Elders, know that if this cornerstone has been wrested from its place, hard times have come to our village. We know well that the luxury the gold and silver have brought us will not last forever. It is right that we should plan for the future. Accordingly, we have set aside a chest of treasure for your use in this time of need. This is our gift to those who will walk these paths long after we are gone." The remainder of the letter advised them to use the map and the compass to find the abandoned mine shaft that held their treasure. You can well imagine the joy of The People of Neekells. They were saved. The bleak winter would not starve them after all.

"Who shall we send?" The People asked each other excitedly. "Who will make the journey into the mountains?" After much discussion, The People decided to send Bruno, who was the tallest, strongest man in Neekells. A knapsack was filled with food and supplies, the map and the compass were put into Bruno's powerful hands, and everyone cheered as he strode out of Neekells toward the Five Fingers of Stone.

In just one day, Bruno climbed the narrow, twisting path that led to the deserted mine shaft. His heart leaped with joy when he saw the mouth of the tunnel, but as he stepped toward it, a gnarly, little, old man jumped out of the brush and blocked his path.

The hermit roared in anger, his voice ten times the size of his body. "Stop right there. You can turn around and go right back where you came from, you no-good trespasser. I know why you're here, and you're not going to get it."

Bruno snarled back at him. "You'll move if you know what's good for you, old man." Then he lunged at the hermit. The old man seized Bruno's arm and twisted it painfully behind his back. He spun the young man around and hurled him down the rocky path that led to the mine.

Bruised and battered, Bruno pulled himself up and charged the old man in a blood red fury. The hermit stepped calmly aside and tripped Bruno with his thick oak walking stick. Then he jumped on Bruno's back and started beating him about the head and shoulders. Bruno bellowed with pain, clambered to his feet, and ran down the mountain as if the devil himself were chasing him.

The People received Bruno's story with great concern. Now what would they do? They mumbled and frowned, they argued and discussed, until finally one voice rang out. "Let's send Lucinda. Lucinda can talk the bark off a tree!"

Lucinda packed her knapsack, took the map and the compass into her hands, and left the village. It took her two days to scale the mountain and reach the path to the mine. As she approached the entrance, she spied the hermit loitering near the opening. Quickly, she ducked behind a tree, opened her canteen, and poured its contents onto the ground. Then she refastened the cap and stepped back out onto the trail. She hailed the hermit in her most cheerful voice, "Good morning, good sir." The hermit looked up, and she continued. "It is so delightful to see you, kind sir. I had thought that I was alone in the mountains, and now I know I am not."

To this, the hermit responded in the sweetest of tongues, "My dear, the pleasure is all mine, for it has been years since my eyes have rested upon such beauty." Lucinda smiled at his words. Bruno is such a fool, she thought. Force won't bring the treasure home, but sweet words will.

Lucinda wiped her forehead with the back of her hand and shook her empty canteen in front of the hermit. "I'm afraid I have run out of water. I hear a stream down below, but I'm so tired from my climb. Would you be willing to fetch me a canteen full of water?"

"I would be honored and delighted to carry out such a small task on your behalf," the hermit replied. "I'll get right to it." But then a frown crossed his face.

"There is just one thing, just one thing I do not, indeed, I cannot, understand."

"What is that?" Lucinda asked.

"I do not see how anyone could have allowed a rare and gentle beauty such as yourself to enter these wild environs unprotected. This is the season when the tigers that prowl these heights are mad with hunger. The danger is as great as your loveliness." "Danger?" Lucinda exclaimed. She listened, certain that she heard the low rumble of a beast on the prowl. Anger welled up from deep inside her. The People of Neekells, she thought, had risked her life while they remained safe in their homes. She snatched the canteen from the hermit's hands, spun on her heel, and headed back to Neekells.

It wasn't until she was down the mountain that her anger had cooled enough to reveal her folly.

The People of Neekells groaned when they saw Lucinda return empty handed. The snow clouds would soon be coming. Again, they gathered to discuss their plight. Again, they mumbled and frowned, talked and discussed, but this time to no avail. Finally, a creaky voice raised itself above the others: "I'll go." The People turned, looked, and laughed. It was Virgil, the oldest man in the village. His back was bad, his hip was bad, and his hair was thin and white. If Bruno couldn't get the treasure, what chance would Virgil have, they wondered. Still, there was no one else.

"I'll go," Virgil said again. With the greatest of reluctance, The People of Neekells stuffed Virgil's pack with food, handed him the map and the compass, and left him to head into the mountains.

It took Virgil three days to reach the abandoned mine shaft. He found it in the late afternoon, and the hermit was nowhere in sight. Virgil stopped by the side of the path, spread out his bedroll, gathered some firewood, and built a fire. He prepared a stew for the evening, and then sat back against the trunk of a tree and smoked his pipe. At last, the hermit came crashing through the brush. "Another one, eh? I thought I was rid of the likes of you," he growled. Virgil took his pipe from his mouth, pointed the stem at the food he had prepared, and said, "Sit down, friend. You must be hungry."

"My stomach is no matter of yours," the hermit snarled.

"But stew never hurt anyone yet." Virgil leaned forward and ladled up a bowl of piping hot stew. The aroma made the hermit's mouth water.

"Well," the hermit hesitated, "I guess I might have a bit." He took the bowl from Virgil's hands.

After the stew came a contented smoke on Virgil's pipe. After the smoke came a long, rambling conversation about old times, old people, and old ways. Finally, deep into the night, Virgil said, "Old man, you have something we need, and we have something you need."

The hermit cut him off. "There's nothing you have that I need. Nothing."

"Sure, sure, so you say," Virgil acknowledged. "But the truth is something different. The truth is you need a home, old man, and we need the treasure. You come down the mountain with me and give us the treasure, and we'll make a home for you." The hermit snorted.

"I've made my offer, old man," Virgil said. "If it's a trade not to your liking, I'll leave in the morning and see that you're never disturbed again." With that, Virgil crawled into his bedroll and fell into a much needed sleep. The hermit was up at first light. "Come on, old man," he said to Virgil. "We're going down the mountain." Virgil yawned and stretched. By the time Virgil was up and moving, the hermit had pulled the treasure from the mine shaft. By the time the sun was fully up, the two men were on their way down the mountain.

The children saw them first. "Virgil's back," they shouted. The People flooded out of their houses and barns. They surrounded Virgil and the hermit and heaped them with praise.

With the treasure in hand, The People of Neekells bought the food they needed for winter. In the spring, they built a new town hall, a hall with a private apartment and broad front porch. For many years, Virgil and the hermit sat on the porch and talked about old people, old times, and old ways.

Reflection: The Treasure Seekers

In a journal or in conversation reflect on:

- Why did Bruno fail to recover the Treasure?
- Why did Lucinda fail?
- What led to Virgil's success?
- What did the Hermit fear most?
- Connect the interaction between Virgil and the Hermit to a situation drawn from your own life.

Practice: Cultivating Resilience

Start a resilience journal. At the beginning of each week ask yourself these questions and make goals or changes based on your answers.

1. "Am I as strong as I could be?"

If not, how could I become slightly stronger tomorrow. When ageism whispers to us -- "You are old, you are meant to be weak." -- we can answer the poisonous myth with the truth. We can grow stronger at every age.

2: "Am I living a life of purpose?"

What is the first thought that comes to us when we wake in the morning? Is it about us, and our own faults and failures, or do we think of others first? Living a life of purpose requires us to know, in our bones, why we remain among the living.

3: "Do I belong here?"

Belonging, like love, is a two way street. We know we belong when we feel equally at ease giving and receiving. We are burdened when we always give and never receive. We become a burden when we always receive and never give. Belonging happens when we can rely on others and know that others can rely on us.

Afterword

Life is full of stories; some people say that life is a story. The stories we choose to believe, and tell, wield enormous influence over our health and wellness. They also give shape to our lives and define the boundary between the possible and the impossible.

If you are reading these words it is nearly certain that you are a bit of an oddball. You picked up a book titled *Aging Magnificently* and then read it all the way through. Regular people KNOW that aging magnificently is -impossible. You know better. You are mastering a new story.

Dear reader, you now stand on the threshold of a great adventure (likely the greatest adventure of your life). You have seen what is in front of your nose, you have seen that aging is a beautiful, natural, part of life, and you have dared to hope that the decades ahead may be the best yet. But, turning that hope into reality requires a plan.

First steps are an especially important part of any journey. So begin the voyage of discovery by asking yourself. "Where do I want to go, and what will help me get there?" The Good Life awaits those with the courage to set goals, make a plan, and little by little, turn a dream into a reality.

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