

Bring the Family Address: Long Life - The Unexplored World

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Thinking about the future is a theme that is dominating many areas of psychology. How do people make decisions that affect their well-being, their financial security, and their health? How and when do people defer immediate gratification for long term benefit? Why do we misunderstand what will make us happy tomorrow or 10 years down the road? In today's society, these questions are particularly relevant as we adapt to unprecedented longevity.

APS Fellow and Charter Member Laura L. Carstensen, Stanford University, is well-known for her work treating the future as an independent variable in people's present thinking. How does it affect our decisions and our preferences today when the future seems open-ended, as opposed to when it seems short? In her Bring the Family address "Long Life in the 21st Century," delivered at the APS convention, Carstensen examined the question of how we can and need to rethink the life-course, both as individuals and as a society, given the expanding horizons that the past century made possible.

Life in the past was short by current standards (not to mention nasty and brutish). In 1900, life expectancy in the United States was just 47. But by 2000, it had increased to 77 — a three-decade increase over just a century. "The 20th century gave us a fabulous gift," Carstensen said, "with no strings attached: an extra 30 years. That's like a third part of life. ... When you think about it, what more could a species want than for everybody to have the opportunity to grow old? That's where we're headed."

Although humans have searched for the fountain of youth since time immemorial, the gift handed to us by the 20th century, Carstensen explained, had nothing to do with defeating death or pushing the envelope on the human lifespan. It was about making life better for everyone, especially the young.

The world of the 19th century, Carstensen reminded the audience, had been a world with no public waste removal, no vaccinations, no electricity, no refrigeration, and children working side by side with adults in mines, factories, and other dangerous places. One in four babies died before age 5, and 25 percent of survivors were orphaned before 18. Transformations not just in medicine but throughout early 20th-century society contributed to making life safer and healthier for all: Milk was pasteurized, water was purified, public education expanded to include almost everyone. "You probably have your garbage collectors to thank as much as your physicians for this life-expectancy increase in the 20th century," Carstensen said.

The result of this gift is that people in developed countries can now expect to live through most of their eighth decade or beyond. This is causing a demographic shift: as the baby boomers fill the upper age layers, demographics will look more rectangular and less pyramidal, with similar numbers of young and old. "In just a few years, we will have more people over 60 in this country than under 15 — a remarkable and completely novel phenomenon in history," she said. By 2030, 22 percent of the population in America will be over 65. The "population pyramid" will thus go the way of the stone variety, becoming

an archaic reminder of a past in which old age was a privilege of the few.

And those over-60 baby boomers intend to remain active and healthy for the duration, so the question becomes “What are we gonna do with these supersized lives?” It is not just a question for older people. Long life means reimagining life at all ages, Carstensen said.

Framing the Horizon

Humans are unique in their ability to monitor time — not just clock time, but *life* time — because we are aware of our own mortality. We have some sense, even at young ages, of how much time we’ve likely got left, and our goals are always set within temporal contexts. Carstensen’s research has examined how this awareness of time horizons influences the differences in outlooks between young and old.

It influences the way people process information, for one thing. Carstensen’s research has found that, compared to young people, older people tend to be less focused on the future and more focused on information that helps them regulate their current emotional state. She described a series of experiments in which participants of different ages were shown ads for products with slogans that either reflected an information-gathering orientation — for example, a camera ad that read “Capture the unexplored world” — or slogans that had a more emotional appeal — such as, “Capture those special moments.” Compared to younger participants, older participants preferred and remembered better the products sold with an emotional appeal.

With this greater focus on emotional regulation with age comes a greater focus on positive versus negative information. In another experiment, participants of different ages were shown pairs of faces — one neutral, and one either positive or negative — and their reaction times to dot probes following the faces were recorded. Older people were faster in responding to probes behind the more happy face of a pair, showing a preference to process positive information. Carstensen said that this increased positivity with age may explain upward trends in well-being and mood, and lower levels of depression, observed in older adults.

Now Versus Next

It is not true that old people tend to dwell in the past, Carstensen said. Her research has found that old people don’t think about the past any more than young people do. The difference is that they don’t think about the future nearly as much as younger people do.

When people perceive the future as open ended or vast, they are in a motivational frame to gather new knowledge. They are interested in taking risks, meeting new people, expanding horizons. “Younger people kind of live in the ‘next’ moment,” she said — gathering negative as well as positive information to help them navigate the immediate future. In contrast, older people live more in the now, prioritizing emotional well-being and satisfaction, “because you get that in the moment.”

“As people grow older, they tend to become able to separate the wheat from the chaff, to see what’s important and what’s not, and tend to savor life,” she said. “When your goals are about emotional well-being and emotional satisfaction, pursuing them is something that’s realized in the pursuit. So you don’t wait years to expect something to pay off; you experience it in the here and now.”

The “next” versus “now” attitudes of the younger versus the older generations are not about age, exactly. “It’s not a cohort effect or an intractable developmental shift,” Carstensen explained. “It’s about the *perception of time*” — and this is subject to modulation depending on how the future is framed. The present-centered mindset associated with older age can arise any time people are made aware of their shrinking horizons. And the exploratory mindset typical of youth can be induced at any age when the future is framed as being wide open and deadlines far off.

In another experiment, subjects were shown the same ad pairs used in the earlier experiment, but some participants were told to imagine that their doctor just informed them of an advance that would allow them to live 20 years longer than they had expected. In this condition, the age differences in preference for the different ads disappeared.

Third Life

In a sense, modern times reflect Carstensen’s experiment writ large: a rapid, no-strings-attached gift of extra decades. When the reality of this gift sinks in, it can create an altered mindset. The trouble is, social attitudes about age and aging progress unevenly. The presumption of decline still dominates many people’s beliefs about age and aging. Carstensen recounted her experience being interviewed on the *Today* show about her findings that older adults experience fewer negative emotions than their younger counterparts. An incredulous Matt Lauer, locked in an older mode of thinking about old age, would have none of it: “Don’t you think it’s dangerous to say the things you’re saying? Don’t you think they’ll lose their support in society?”

Laura Carstensen accepts a plaque
from APS President John Cacioppo.

Carstensen countered that the stereotypes of lonely elderly, failing in body and mind, are being violated more and more. It is possible for people to flourish in old age; countless people are already doing so, and we don't think of them as old. "When you win, you're an old pro, and when you lose, you're an old man," she said. "Our real challenge is to create a world where everyone has the opportunity to be an old pro."

There is also a lot of fear-mongering around the issue of our aging population. We are accustomed to hearing that longevity will put a huge burden on society as a whole and that young people will face a tough choice between providing for their children and providing for their aging parents. But Carstensen insists there's a third option: invest in science and technology, and learn how to use those extra years to improve quality of life for all ages.

"To the extent that people arrive at old age mentally sharp, physically fit, and financially secure, then societies and individuals will thrive," Carstensen said. In this sense, longevity is not simply an issue for older adults. It requires rethinking our lives at all ages, and planning for a longer future than we were once accustomed to.

That's easier said than done, however. "Humans are wired to live in the present, not plan for the future," she noted. "Sabre-toothed tigers weeded out the slow runners, not the people with the smallest 401(k)s." Research by Carstensen and her colleagues is exploring ways to promote future planning by building an emotional connection to our older selves.

She described an experiment in which student participants made a decision about allocating money toward a retirement fund after interacting in a virtual environment either with an avatar of their present self or with an avatar having their projected appearance decades in the future. Young people have trouble imagining themselves at older ages, Carstensen said, but unsurprisingly, those who interacted with a computer generated version of their older self were more inclined to invest in their future.

Redesigning Life

"What we did in the 20th century was build a world that was exquisitely attuned to the needs of the young," Carstensen said, and this made it possible for nearly everyone to reach old age. Her Stanford Center on Longevity is trying to do what our predecessors did a century ago, but this time focused on the other end of the lifespan — putting together teams to anticipate and solve the problems of an aging society.

She said it is necessary to begin asking big questions like what should a life doubled in length look like? How should families operate when four, five, or six generations are alive at one time? What should happen to retirement? "We have tacitly made all the extra years part of leisure," she said. "I worry that we're missing an unprecedented opportunity to improve life at all ages ... to redesign life."

Carstensen indulged in a fantasy of what a redesigned life-course in the 21st century might look like.

“Maybe we should stretch out adolescence. Maybe we should make young adulthood longer. ... Maybe we should work shorter work weeks, but more years. Maybe everyone should get sabbaticals at various times throughout their lives.” In her ideal model, retirement would be shifted from old age to young adulthood — for the third and fourth decades of life, people could travel, explore, raise families, perhaps aided by the governmental supports retirees receive now, and then enter the workforce full time around age 40, and work until 80.

“Then,” she quipped, “at 80 we could draft people into the military.”

Carstensen said that her own generation, the Woodstock generation, the baby boomers who long ago counseled each other never to trust anyone over 30, are now in a position to craft another social revolution by making older age inviting — not a burden, but a benefit to society. “We can craft an old age that will be intellectually stimulating, productive, and fun,” she said. “This is not a story about old age. It’s a story about long life. And it’s ours to write.”