

Companies, People, Ideas

Rethinking Old Age

Dorothy Pomerantz 11.26.07

Laura Carstensen



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Laura Carstensen almost died when she was 20 years old. After a Hot Tuna concert in Rochester, N.Y. in 1974, the van she was riding in tumbled off the highway down an embankment. Carstensen, a single mother, broke 20 bones, and doctors said if she lived, she would never walk again.

She spent the next four months in an orthopedic ward. To help keep her mind active, the nurses bunked her in a four-person room with a procession of elderly women. Carstensen was told to talk to the older patients to keep them from "sundowning," becoming disoriented from drugs and the lack of windows in the hospital.

Carstensen quickly realized that the women were being treated differently from her. While she was carted off to physical therapy three times a day, had teams of doctors examining her wounds and eventually walked, many of the older patients with broken hips were ignored. When one older woman was healthy enough to go home, the hospital prevented her from leaving until she paid her bill, which meant selling her home. "It was horrible," says Carstensen.

The experience so marked Carstensen that the self-described wild child hunkered down and earned a Ph.D. in psychology, becoming over the next 30 years one of the nation's leading thinkers on the social psychology of aging. In 2003 she coined the term "the positivity effect," a phenomenon that describes how people

focus more on positive than negative information in old age. We are, it turns out, inclined to get happier--or at least focus on that which will make us more content--as we close in on death. Much of her recent work at Stanford University has debunked stereotypes about how older people are uniformly slow, cranky and mentally impaired. But the positivity effect

has drawbacks: Older people often ignore crucial but nettlesome details or fall prey to scammers selling the moon.

Carstensen, 54, is now putting her ideas into action, with an urgency that is rare for an academic psychologist. Carstensen sees a crisis coming in the next ten years over society's failure to deal with the aging boom. "Life expectancy has doubled in the past century, but we've changed little in how we deal with those extra 30 years," says Carstensen.

By 2020 the number of people over 65 will reach a historic high of 55 million, up from 20 million in 1970. Money will be tight to pay for their care, as the ratio of taxable workers per benefits-collecting retiree will shrink from four to two. Consumer products, homes and offices will have to be redesigned to be made more accessible to the infirm. Investment firms will have to persuade retirees to take more risk but also to become more aware of how their overly rosy outlook can make them susceptible to scams. A recent Federal Reserve study shows that older people earn as much as a risk-adjusted 5% less per year on their investments.

Last year billionaire Richard Rainwater donated \$10 million to establish the Stanford Center on Longevity, which Carstensen heads. She and Stanford neurology professor Thomas Rando have gathered 100 professors of economics, medicine, management and engineering to collaborate at the center. The center has hired a tech entrepreneur to pitch ideas to businesses and a Beltway lawyer to direct policy pronouncements.

So far the most concrete product to come out of the center is a shoe that helps alleviate the effects of arthritis. Other projects in the works include a robot to help with household tasks; an ankle brace to prevent falls that senses when an older person is getting off balance; and an Internet program for self-management of chronic diseases.

Carstensen started thinking about the possibility of the positivity effect after a 2003 study where she showed subjects ads with either emotional taglines, such as "Take time for the ones you love," or goal-oriented slogans, like "Take time for success." The older participants remembered the emotional ads much more than the goal-oriented ads. Later studies with magnetic resonance imaging machines showed that the amygdala, the part of the brain responsible for memory and emotional reactions, didn't fire even when older people were shown disturbing images.

The findings backed up what Carstensen had seen during her 20 years of clinical work. Because they can block out negative information, older people are more content than younger people. (Cranky Grandma Rose likely always had a cranky demeanor.)

The work earned Carstensen acclaim among psychology professors, but she woke up to a wider possibility after sharing her findings with her friend Alan Garber, an economics professor at Stanford, in 2004. "He said, 'That's very interesting. Now make me care.'"

The two started having conversations about what the effect could mean for people's economic choices. Garber's involvement inspired Carstensen's graduate student Corinna Lockenhoff to see if, in light of the positivity effect, there was a way to help older people make better decisions about health care. In a study last year with Carstensen, she asked two 60-participant groups, one under 39 and one over 62, to review and choose among four health care plans. All the plans had pros and cons. The older participants repeatedly ignored the negative aspects when asked to choose, but the younger group reviewed both the good and bad. When the researchers reminded the older cohort to focus on accuracy, they paid more attention to the negative options.

Carstensen cites DecisionStreet.com as a possible model. The Web site, whose founder works with Stanford's longevity center, determinedly walks users through a set of questions to help them make emotion-free decisions about nursing home and end-of-life care.

Hal Ersner-Hershfield, a fifth-year psychology grad student in Carstensen's lab, is working on a way to help young people make better decisions about planning for retirement. It's based on his work using functional magnetic resonance imaging brain scans that first demonstrated that, when people are asked to imagine themselves in retirement, the parts of their brains that usually "light up" when they think about themselves don't light up at all. It's as if they were thinking about a stranger.

Ersner-Hershfield teamed up with computer engineer Jeremy Bailenson to make people identify with their older selves. A subject in their lab is photographed and the picture is digitally morphed to make the subject look older. The subjects then put on virtual reality goggles and half interact with their aged image in a mirror. When the goggles are removed, participants are given the opportunity to either spend or invest \$1,000. Though only four people have been tested, Ersner-Hershfield says that the two who saw themselves as old allocated at least \$500 to their retirement. The two who saw their unaltered selves allocated less than \$200.

"If we can show this works in the lab, we can come up with a more practical way to apply it," says Carstensen.

Carstensen always thinks about her time in the hospital back in the 1970s. She remembers one patient who was constantly visited by family and seemed to thrive, and another who was terribly alone and never seemed to fully heal. She feels the quality of old age is determined by how people are treated. She cites changes we have made before as a society to improve our way of life--changes like waste collection and public education-- as models for how we need to change the world again.

"We need to get science and technology working to make the real vulnerabilities associated with aging invisible."