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NEW RESEARCH AFFIRMS SENIORS' MENTAL ABILITIES

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It is one of the greatest fears of aging: losing the ability to think quickly, remember accurately, and reason clearly. Years of laboratory testing indicate that these skills decline beginning in young adulthood.

But a growing body of research is challenging the depth of this deterioration and its impact, suggesting that most healthy seniors can work, drive, and live independently well into their golden years. "Older adults function much better in life than we give them credit for," said Thomas M. Hess, a psychology professor at North Carolina State University who has conducted some of the new research. "It's providing a more realistic picture of what happens when people age."

The research indicates that testing conditions have exaggerated some of the mental declines, and that many older adults compensate easily for the modest changes in their brains with greater vocabulary and world knowledge.

In Hess's studies, for example, seniors performed dramatically better on memory tests after they were given information that challenged stereotypes about memory loss in aging. In one study that tested the ability to remember a list of words, seniors narrowed the gap between themselves and college students from 15 to 3 percent, he said, apparently because expectations were raised and they were put at ease by knowing their performance would not reflect badly on seniors.

Testing in the morning, when many older people are sharpest, halved differences between age groups on other memory tests, according to the work of Lynn Hasher, chairwoman of the psychology department at the University of Toronto.

Several researchers have also found that older adults outperform the young in reading comprehension when the material to be read and remembered is relevant to their lives. And seniors performed just as well as young adults in reasoning tests when the problems to be solved had real-world significance and an emotional element, according to work by Fredda Blanchard-Fields, a psychology professor at the Georgia Institute of Technology.

"This work is going to allay a lot of the fears," said Blanchard-Fields. "When placed in a real-world working context, there's more that older adults can draw on to do as well or better [than young adults] given their wealth of experience. Society underestimates the competency of older adults and older workers."

Ellen Feingold believes she is an example of how well many seniors compensate for some deficits. At 73, she runs Jewish Community Housing for the Elderly, an 80-person, \$14 million nonprofit agency in Brighton. She just cochaired a national commission appointed by Congress to study housing and health facility needs of seniors and serves on the boards of several national organizations.

"I'm a person who never had a good memory," Feingold said. "As I get older, people giggle at it, but I don't think it's much worse. I don't think I'm as good at multitasking. On the other hand, my ability not

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to see every immediate crisis as a crisis has increased. I can work with people nobody else can work with. I'm a good example of how experience far trumps any loss of nuts-and-bolts skills."

Researchers stress that some deficits remain real. Most seniors do take longer to learn new information and are less able to perform multiple mental tasks at once. Learning a foreign language at age 60 remains much more challenging than at age 20. In addition, older adults with dementia, untreated diabetes, or other illnesses that affect mental capacity will experience significant declines that are likely to make their lives difficult.

But for others, gains in vocabulary and wisdom, which researchers have documented into the 70s, work well to offset most difficulties.

"Cognition is vulnerable to aging, but knowledge is the great protector," said Denise Park, director of the Center for Healthy Minds at the University of Illinois at Urbana-Champaign. Park has spent years documenting a steady mental decline from young adulthood on in key areas, but welcomes the new work putting the deterioration in context.

"We need to recognize that processing does decline but there's this other marvelous part of our cognitive system that continues to thrive and expand."

Much of the new work has been funded by the National Institute on Aging. Molly Wagster, the NIA official who oversees this area, says the research is showing the flexibility of the older brain.

"And there may be things that can be done - environmental or perhaps dietary interventions that could stimulate a positive reaction in the brain," she said.

While the brain does lose cells with age, recent physiological research shows it can grow new cells and add new connections among brain cells that can overcome other deficits. Scientists are finding that both mental exercise and aerobic physical exercise speed this process. In addition, good nutrition, including fruits and vegetables rich in antioxidants, appears to help, as does reducing stress, getting enough sleep, and keeping socially active.

Studies that follow individuals for years demonstrate the gradualness of their mental declines. For example, people over 55 given a list of 20 words to remember showed an average memory loss of about one-tenth of a word per year, said Elizabeth Zelinski, who oversaw the study as director of Leonard Davis School of Gerontology at the University of Southern California. While studying the same group of adults for 16 years, Zelinski and her colleagues found many individual differences and that abilities did not decline in lockstep.

Some of the declines may also be a sign of the mind successfully adapting to changes in the brain, according to Laura Carstensen, a psychology professor at Stanford University. Her research has found that older people remember emotionally salient information a lot better than neutral or irrelevant information. She suggests that they're triaging, focusing on what's emotionally important, rather than struggling to remember everything. Within a familiar context, such as a longstanding job, these deficits may make little difference, Carstensen said.

Cambridge attorney William Landau says he hasn't noticed any deficits and finds his work no more mentally challenging at 73 than it was two decades ago. He works alongside his father, now 100, who comes into the office every day to work on trusts and estates.

"I'm still working, still dealing with the public, still functioning as well as I always have," said the younger Landau. "I'm trying to slow down because I want to have more free time, but I don't feel I'm getting old at all. I recently told one of my clients that I'm not going to be taking any of his new cases. He said, 'That's OK, I'll use your father.'"

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