How Age Magnifies Experience: Deconstructing Cross-Cultural Differences in Aging

March 25, 2020

Sidebar: Culture Shapes How and What We Remember

No matter where you are in the world, it’s more likely than not that you live in an aging society. As average life expectancy increases and fertility rates continue to drop, people age 65 and older are representing a larger and larger proportion of the population everywhere from Lebanon to Germany to China.

One of the most drastic of these shifts is occurring in Japan, a “super-aging” society where, according to the United Nations’ 2019 World Population Prospects report, 28% of individuals currently qualify as senior citizens, and one in three are projected to be over 65 by the year 2030.

In 1987, Hiroko Akiyama, an emeritus professor at the University of Tokyo’s Institute of Gerontology, launched the National Survey of the Japanese Elderly—a 30-year longitudinal study of nearly 6,000 Japanese residents over 60—to track changes in the physical and mental health, economic status, and social relationships of this growing population. Since then, she has worked with the city of Kashiwa, Japan to redesign the city to meet the needs of a super-aging society. They developed workplaces for residents’ “second life” as senior citizens, community dining services, a civic participation program for frailty prevention, and a home-based health and long-term-care system, which may allow individuals to maintain greater independence and quality of life by “aging in place” in their communities.
Akiyama’s research suggests that community programs such as those outlines above could help make Japanese cities more aging friendly. Photo credit: The Toyoshikidai Gerontology Research Group (May 2018), Kashiwa-Toyoshikidai Projects for Enabling Age-friendly Communities: Achievements and Future Challenges.

But while these solutions might be a good fit for Japan, research suggests that the needs of aging societies may differ significantly between cultures—at least in part because of differences in older adults’ social relationships and what they expect to get out of them.

**Sizing Seniors’ Social Networks**

In 2017, Akiyama collaborated with Kristine J. Ajrouch, a professor of sociology at Eastern Michigan University; Heather R. Fuller, a professor of human development and family science at North Dakota State University; and APS Fellow Toni C. Antonucci, a professor of psychology at the University of Michigan and recipient of the 2020 APS Mentor Award, to examine these differences in a study of 1,980 adults over 50 in metropolitan areas of Japan, Lebanon, Mexico, and the United States. Each of these countries is undergoing significant generational shifts in fertility, the researchers noted; on the high end, Mexico has dropped from an average of 6.8 children per family in 1960 to 2.2 children in 2014, and, on the low end, Japan has dropped from 2 to 1.4 children in that same time span.

Participants in Ajrouch and colleagues’ study mapped their relationships with up to 20 of the closest people in their lives. In line with the convoymodel of social relationships, which envisions
individuals as moving through life surrounded by supportive others, relationships could fall into one of three categories on the circular map: the inner circle (people who feel so close that it is hard to imagine life without them); the middle circle (not quite as close, but still important); and the outer circle (otherwise important, but less close individuals). Participants also provided additional information on the top 10 people in their networks, including demographics, geographic proximity, and how frequently they had contact.

In line with the convoy model of social relationships, which envisions individuals as moving through life surrounded by supportive others, relationships could fall into one of three categories on the circular map.

This data revealed several universal findings, including how children are close and frequent sources of support in old age. In the context of drastically declining fertility, this means it will become increasingly difficult for children to meet the needs of aging parents without outside support such as in-home health aides and long-term care facilities, Ajrouch and colleagues noted.

A number of findings unique to these countries were uncovered as well. For example, although Americans reported having the largest social networks, with an average of 11.3 close relationships, their social networks became smaller and more geographically disparate with age. This was not the case for Japanese and Mexican participants, however. Moreover, the social networks of Lebanese participants, who had the smallest, most local social networks (an average 5.8 important relationships), expanded with age.

In a related study of 1,331 individuals between 70 and 90 years old in France, Germany, Japan, and the United States, Antonucci, Akiyama, and APS Fellows Jennifer E. Lansford, a professor of public policy at Duke University, and Jacqui Smith, a professor of psychology at the University of Michigan, found smaller social networks among widowed or ill older adults in Germany and France than among those in Japan or the United States.

Together, these findings suggest that not all social networks shrink inevitably with age as a result of members dying and not being replaced; in fact, this effect may occur differentially within cultures. These findings may also reflect differences in countries’ size and socioeconomics: Americans, for example, often move across the country for career opportunities or retirement, while people in Lebanon are more likely to remain with the same people in one community for their entire lives, though young adults are leaving the country at a higher rate in pursuit of economic opportunity.

“These findings signify a need for flexibility with respect to how policy is developed and implemented given the unique situational contexts of nations,” Ajrouch and colleagues concluded.

**Social Expectations Shape Well-being**

The effects of these various social network structures may vary on the basis of the social expectations of cultures as well. In a 2008 study, Katherine L. Fiori, a professor of psychology at Adelphi University, along with Antonucci and Akiyama, compared the social network maps and self-reported mental/physical health outcomes of 491 Japanese and 514 American adults over age 60.
This analysis revealed four common network types, which the researchers referred to as *diverse, friend-focused, family-focused, and restricted*. In Japan, the most common network type, reported by 29% of participants, was a *family-focused close network* in which married and widowed individuals alike reported frequent contact with supportive family members. In the United States, on the other hand, 32% of participants reported living in a diverse, extensive social network, in which primarily married individuals interact with a large number of supportive family members and friends.

There were also several network types unique to each culture. Some Japanese participants reported a unique married and distal, or isolated, network type, with few emotionally or geographically close relationships outside of their marriage. In the United States, these unique social-network types included unmarried individuals in emotionally supportive (and unsupportive) friend-focused networks, as well as family-focused networks in which interactions were perceived as mostly negative.

In addition, American participants in family-focused negative networks, as well as those in functionally restricted networks—in which they reported low emotional support and highly negative relationships—reported significantly higher levels of depressive symptoms and physical health problems than those in other network types. Even when Japanese participants reported low levels of support, Fiori and colleagues found that social-network type was not associated with their self-reported physical or mental health.

There are a range of potential explanations for the differences between US and Japanese participants. It is possible, the researchers wrote, that Japanese participants were less willing to admit they were unhappy with their social networks. It may also be that people from different cultures assign different meanings to their social networks and therefore respond to the same kinds of social networks differently.

“In Western societies, like the US, the key to relational well-being may be the creation of intimate connections with large numbers of people as a safeguard against the experience of loneliness,” Fiori and colleagues proposed. “Because in Japan relationships may be viewed as predetermined or obligatory, rather than constructed or voluntary, the Japanese may ‘learn’ to be happy with whatever network they have.”

In fact, these differing expectations permeate our social experiences, causing individuals from different cultural backgrounds to respond differently to social support on a physiological level, according to APS William James Fellow Shelley E. Taylor, a professor emeritus of health psychology at the University of California, Los Angeles, and colleagues in *Psychological Science*.

In a 2007 study of 81 undergraduates, half of whom were Asian or Asian American and half European American, Taylor and colleagues collected a set of three saliva samples from participants before, during, and after they completed a series of challenging mental-arithmetic tasks and presented a short speech to the researcher in the room with them. Just before giving their speech, however, participants were assigned one of three writing tasks: an implicit-support task, in which they wrote about a group of people who were important to them; an explicit-support task, in which they wrote to a person important to them for advice about the speech; and a no-support task, in which they wrote about campus landmarks.

After completing these tasks, European-American participants in the explicit-support condition reported
being less stressed and produced less cortisol (a stress hormone) in their saliva compared with the Asian and Asian American participants in the same condition. The Asian participants, on the other hand, reported being less stressed and produced less of the hormone when they reflected on important relationships without specifically referencing their own troubles.

“How people gain the psychological and biological benefits of social support in a given cultural context may depend on the cultural emphasis on relationship goals,” Taylor and colleagues wrote. “Culturally inappropriate forms of social support…may actually have exacerbated stress.”

In line with this and other research, there is no one-size-fits-all approach to addressing the long-term care needs of older adults, Fiori and colleagues wrote. “Back-to-the-family” policies that tout the benefits of multigenerational households may seem appealing on the surface, for example, but that doesn’t mean they’re appropriate for all settings or social-network types.

“Those developing social policy must balance an understanding of cultural values with the varying needs of different groups of elders,” Fiori and colleagues concluded.

Sowing New Stereotypes

Research by APS Fellow Becca Levy, professor of epidemiology and psychology at the Yale School of Public Health, pioneered the perspective that aging is not just a physiological phenomenon—it’s socially constructed, and internalizing negative beliefs about aging can make the decline associated with age more severe. These stereotypes are built up over the life course, Levy wrote in Current Directions in Psychological Science (2009). Her research group has found that age stereotypes can influence everything from memory to balance and willingness to pursue a healthy lifestyle or follow through on a course of medication.

In one study, Levy and colleagues found that individuals with more positive perceptions of aging lived an average of 7.6 years longer than those who took a negative view, even after adjusting for baseline differences in health.

“The adverse effects of negative age stereotypes point to the need to develop interventions that will maximize the influence of older individuals’ positive age stereotypes in their everyday life,” Levy wrote.

Fortunately, this does appear to be possible. In a 2014 Psychological Science study of 100 older US adults between 61 and 99 years old, Levy found that 4 weeks of an implicit stereotype intervention significantly improved participants’ self-perceptions—and boosted their physical functioning more than a 6-month exercise intervention.

Participants, who were interviewed in their homes seven times over 8 weeks, were split into one of four conditions:

- Individuals in the implicit-intervention group, who were tasked with indicating whether a flash appeared above or below a point on screen, were subliminally exposed to positive stereotypes about aging during four sessions. During these sessions, positive age-stereotype words such as “spry” were flashed on screen at a speed that allowed them to perceive the words without
becoming consciously aware of them. They also wrote a series of unrelated essays. The participants in this group also took part in a neutral-explicit condition.

- Participants in the explicit-intervention group wrote a series of short essays about mentally and physically healthy senior citizens and completed the flash-indication task with neutral implicit stimuli.
- Participants in the combined implicit and explicit groups completed both tasks about positive age stereotypes. Finally, those in the control group completed both tasks about unrelated topics, such as clothing.
- Participants in all groups also completed an “image of aging” scale that asked them to rate how closely positive terms such as “capable” and negative terms such as “helpless” matched their image of older people in general and of themselves specifically as older people. Finally, they completed a short test of physical functioning that measured their ability to rise from a chair, walking speed, and their ability to balance in various positions.

The implicit-stereotype intervention was found to serve as an “implicit fitness center,” Levy and colleagues wrote, reducing participants’ negative associations with aging 30% more effectively than the explicit intervention, which was in turn found to improve physical functioning.

“The explicit approach may be thwarted by cognitive strategies that preserve existing beliefs,” Levy and colleagues suggested. “The implicit approach may be able to circumvent the internalized negative age stereotypes that tend to predominate over the positive ones.”

The cultural variability in older adults’ health further demonstrates that aging does not have to be accompanied by an inevitable decline in physical and psychological well-being, Levy noted in Current Directions.

The cross-cultural relevance of these findings is notable, Levy says. Her findings on the impact of beliefs about aging on older adults’ health have been replicated by psychological scientists on five continents and supported by four meta-analyses.

Aging societies are already taking on the challenge of redefining this stage of life. Officials in Japan, for example, have called for the country to take steps toward becoming an “age-free” society where, instead of being expected to retire at a particular age, people are encouraged to remain active and working for as long as they are willing and able.

“The remaining challenge is to achieve the activation of positive age stereotypes on a sustained basis,” Levy concluded.

References


**Sidebar: Culture Shapes How and What We Remember**

The interplay of culture and neurobiology sculpt the brain over the course of a lifetime, according to APS Fellows Denise Park, a professor of behavioral and brain sciences at the University of Texas at Dallas, and Angela Gutchess, a professor of neuroscience and psychology at Brandeis University, in *Current Directions in Psychological Science*(2006).

“Cross-cultural investigation of aging provides a window into the stability of changes with age due to neurobiology, as well as into the flexibility of aging due to life experiences that impact cognition,” the researchers explained.

Park’s research suggests that while age may degrade our “cognitive hardware”—reducing processing speed, as well as working and long-term memory—it generally leaves our acquired knowledge, the brain’s “software,” intact. Over time, these experience-based differences continue to magnify, wrote Park and Gutchess, contributing to cross-cultural differences in the aging process even as our brains undergo similar physiological changes.

When young Americans and Singaporeans were examined under fMRI, for example, the researchers found that they exhibited similar activity in the visual cortex when scanning images for repeated objects. But while older Singaporeans and Americans demonstrated similar activity in areas associated with processing images’ background features, elderly Singaporeans had significantly less activity in their object-processing areas.
These findings align with previous research suggesting that individuals from more interdependent cultures attend more to their environment—or, in this case, the background of an image—than do those from more individualistic societies, who attend more to focal objects. These differences are often more evident in older adults because they’ve spent a lifetime immersed in a given culture, Park and Gutchess wrote. Whether these differences qualify as a “deficit” is also culturally dependent.

For example, episodic memory for personal experiences, or autobiographical memory, supports our sense of self, enabling us to recall specific past experiences that make up our personal history. Research has previously linked more detailed autobiographical memory with increased creative thinking, more active coping skills, and greater overall psychological well-being. But while this appears to be true in Western, educated, industrialized, rich, democratic (WEIRD) cultural contexts that emphasize creating a unique, independent personal identity, these benefits may not generalize globally.

In fact, having detailed memories of one’s own experiences may work against the cultural expectation for fitting into an East-Asian context, reducing well-being. In *Clinical Psychological Science* (2018), APS Fellow Qi Wang, a professor of human development at Cornell University, and colleagues reported a set of four studies comparing European-American and Chinese or Chinese-American children and young adults.

In the first of these studies, 99 European-American students from Cornell University and 110 Chinese students from Peking University in China completed a measure of avoidant coping and an memory task that required them to recall three personal events that took place in the last week, the last year, and the past 10 to 15 years. Participants had 3 minutes to describe each of the events in writing, providing as much detail as possible in their native languages. The researchers then coded these descriptions on the basis of whether each detail was specific to that event (e.g., “I went to the science museum with my family”) or general in nature (e.g., “The science museum is very small”).

As suggested in previous work, European-American students who recalled more specific details across all three-time periods also reported using fewer avoidant coping mechanisms, such as making up excuses to get out of social events, compared with peers with hazier memories. The researchers found no relationship, however, between memory specificity and use of avoidant-coping mechanisms among Chinese students. Instead, in subsequent studies, Wang and colleagues found that Chinese-American children with more detailed autobiographical memories reported more symptoms of depression. In addition, their parents rated them as having fewer adaptive skills, such as leadership and active coping.

“If cultural contexts... give rise to the purpose of remembering and thus shape the way the past is remembered in service of the present and the future,” Wang and colleagues conclude. “Detailed remembering of one’s personal past is not necessarily the norm, nor is it always beneficial for psychological well-being.”

Similarly, Park and Gutchess’s research suggests that the quality of our memories changes over time both as a function of age—which can contribute to a reduction in source memory, free recall, and other mechanical skills—and of culture—which may help preserve certain types of memory relative to others.

References