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In Brief

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Thanks for the memories



Consumers feel more gratitude after buying experiences, like vacations, than they do after buying material goods—and that gratitude may prompt them to act more generously toward other people, suggests a paper in [Emotion](#). The researchers analyzed 1,200 online customer reviews and found that reviewers were more likely to mention feeling grateful for restaurant meals and hotel stays than for material purchases, like clothing and furniture. In a follow-up experiment, the researchers also found that when people

thought about a significant experiential purchase, they then behaved more generously toward others in an anonymous game than did people who thought about a significant material purchase they had made.

Dementia decline

The prevalence of dementia decreased among older Americans from 2000 to 2012, finds a study in [JAMA Internal Medicine](#). Researchers analyzed data from more than 21,000 participants in the 2000 and 2012 waves of the Health and Retirement Study, a longitudinal study of Americans older than 65. In 2000, 11.6 percent of study participants had dementia; in 2012, only 8.8 percent did. The researchers suggest that an increase in education levels could account for the dementia decline. Between 2000 and 2012, survey participants' average number of years of education increased by almost a full year, from 11.8 to 12.7 years, and more years of education were associated with a lower risk of dementia.

Moms' brains



Older mothers may see cognitive benefits later in life, suggests a study in the [Journal of the American Geriatrics Society](#). Researchers tested 830 women, average age 60, on a battery of cognitive tasks. Women who had their last pregnancy after age 35 had significantly better verbal memory than younger mothers did, and women who had their first pregnancy after age 24 had significantly better

executive function, the researchers found. They posit that a later-in-life surge of estrogen and progesterone during pregnancy may help explain the cognitive boost.

Teen depression

The depression rate among teen girls in the United States has risen by 37 percent in the past decade, finds a study in [Pediatrics](#). Researchers examined data from participants in the 2005 to 2014 National Surveys on Drug Use and Health, including 172,495 teens ages 12 to 17. The survey lists symptoms of depression and then asks participants whether they have experienced those symptoms in the past year. Using those criteria, 11.3 percent of teens reported a major depressive episode in 2014, up from 8.7 percent in 2005. Among teen girls, the rate rose to 17.3 percent in 2014 from 13.1 percent in 2005. The researchers say that it is unclear what is causing the rise, though an increase in depression risk factors such as cyberbullying could be partly to blame.

Sleep help

A web-based version of cognitive-behavioral therapy (CBT) could help people with insomnia get more sleep, finds research in [JAMA Psychiatry](#). The randomized clinical trial tested 303 patients with chronic insomnia. Half took part in a six-week online CBT training program called SHUTi, while the control group received online information and advice about insomnia. At a one-year follow-up, seven out of ten SHUTi patients still showed some improvement in their sleep patterns; 57 percent had no insomnia at all. In contrast, only 27 percent of the control group had any improvement in their sleep. The researchers say that the program could help make effective CBT therapy more widely available to patients with insomnia.

What's that smell?



Cultural background can affect how people react to smells, finds research in [Chemical Senses](#). Researchers asked two groups of participants—one French and one French-Canadian—to smell six fragrances: anise, lavender, wintergreen, maple, rose and strawberry. They found significant differences in how the two groups rated the odors. For example, the French rated wintergreen less pleasant than the French-Canadians. The Canadians were

more familiar with and better at describing maple and wintergreen, while the French were more familiar with and better at describing lavender. However, when participants were given the names of the scents before smelling them, their familiarity, pleasantness and edibility ratings increased, and cultural differences decreased.

Later learning

Conventional wisdom holds that childhood is the prime time for learning. But a study in [*Psychological Science*](#) suggests that for some types of numerical learning, training is more effective in late adolescence. Researchers gave 633 participants, ages 11 to 33, 20 days of online training in nonverbal reasoning. In one exercise, participants had to determine the pattern in a 3x3 grid of shapes. In another, they had to decide which of two groups of dots was larger. In the pattern-finding exercise, all of the age groups improved—but older teens and adults improved more than younger teens. In the dot exercise, training improved the performance of older teens and adults, but not of younger teens. The researchers suggest this could be because brain regions including the prefrontal and parietal cortices, which are involved in reasoning and numerical skills, continue to develop throughout adolescence.

Unhealthy sexism

Men who endorse masculine norms—particularly those who see themselves as "playboys" or as having power over women—tend to have poorer mental health and are less likely to seek psychological treatment than other men, according to a meta-analysis in the [*Journal of Counseling Psychology*](#). The researchers analyzed 78 studies with 19,453 participants, looking at the relationships among mental health, social functioning, and masculine norms including risk-taking, violence, dominance, sexual promiscuity ("playboy"), self-reliance and others. Men who considered themselves playboys, self-reliant and holding power over women were more likely to have negative mental health outcomes, the researchers found.

Suicide risk



Experts cannot predict suicidal behaviors any better than chance, according to a meta-analysis of 365 studies spanning 50 years, published in [*Psychological Bulletin*](#). The studies examined risk factors such as depression, previous suicide attempts, stressful life events and substance abuse. Despite decades of research, none of these risk factors could predict suicide behaviors better than chance, and experts' ability to predict suicide behaviors had not improved over time. The researchers suggest that future studies should not focus on individual risk factors, but instead on developing machine-learning algorithms that combine tens or even hundreds of risk factors.

Earworms

Can't get that song out of your head? In a study in [*Psychology of Aesthetics, Creativity and the Arts*](#), researchers pinpointed the characteristics that make songs become "earworms." They analyzed a database of earworms that had been identified by a survey of more than 3,000 listeners, and found that earworms usually have a faster tempo than the average pop song, with an easy-to-remember melody but unusual intervals or repetitions. Listeners are also more likely to report songs that get more radio airtime and top the charts as earworms, they found.

Nice women finish last

Women who are agreeable at work earn less than those who are more assertive, according to a study in the [European Journal of Work and Organizational Psychology](#). Researchers surveyed 375 employees at a Dutch multinational electronics company about their personality characteristics and whether they believed their positions and salaries fit their education, experience and performance. The researchers also analyzed objective measures of the employees' education, performance data, positions and salaries. The study found that women consistently earned less than their male colleagues, but that more dominant, aggressive women were less likely to hold positions or salaries below what their status would suggest they deserve.

Screen time



People who spend more time looking at their smartphone screens sleep fewer hours and sleep more poorly than those who spend less time on their devices, finds a study in [PLOS ONE](#). Researchers analyzed data from 653 adult participants who downloaded an app that recorded when their smartphone screen was on. Participants also completed surveys about their sleep duration and sleep quality. On average, the participants spent 3.7 minutes per

hour on their phones. Those who used their smartphones longer than that average slept fewer hours, and had worse sleep quality, particularly when the smartphone use was around their bedtimes.

Schizophrenia genomics

The largest study of its kind has found rare genetic variations associated with schizophrenia in eight locations on the human genome, reports a study in [Nature Neuroscience](#). A consortium of 260 researchers analyzed the genomes of 21,094 people with schizophrenia and 20,227 people without it. They found eight locations in the genome with copy number variants—deletions or repetitions of DNA—associated with schizophrenia risk. The variants occurred most frequently in genes involved in brain synapse function.

Weight and bullying

Children who are victims of bullying are more likely to become overweight as young adults, suggests a study in [Psychosomatic Medicine](#). In an analysis of data from a longitudinal study of 2,000 children in the United Kingdom, researchers found that 29 percent of children who were chronically bullied in school were overweight at age 18 compared with 20 percent of children who were not bullied. The bullied children were not more likely to be overweight at the time they were victimized than the nonbullied children, and the finding was significant even after controlling for factors including socioeconomic status, food insecurity, child abuse, IQ and mental health.

Deep breaths



Yogic breathing may help alleviate depression symptoms in patients who do not respond well to medication, suggests a pilot study in the [Journal of Clinical Psychiatry](#). Researchers assigned 25 patients with major depressive disorder—all of whom still had symptoms despite eight weeks of medication—to either a control group or to a group that received six training sessions in Sudarshan Kriya yoga, which uses rhythmic breathing to achieve a meditative state. After two

months, the yoga group significantly improved its mean score on the Hamilton Depression Rating Scale, while the control group showed no improvements.

The traumatized brain

Trauma may affect the brains of boys and girls differently, suggests a study in [Depression and Anxiety](#). Researchers used MRI to scan the brains of 59 children and teens, ages 9 to 17. Thirty of the participants (14 girls and 16 boys) had experienced a traumatic event. Twenty-nine of them (15 girls and 14 boys) had not. The researchers found no difference in the insula structure of boys and girls who had not experienced trauma. But among those who had, a part of the insula called the anterior circular sulcus was larger in traumatized boys than in nontraumatized boys. Among girls, however, the region was smaller in traumatized participants than in the control group. The finding suggests that boys and girls might have different trauma symptoms and benefit from different approaches to treatment, the researchers say.

Mom knows best

Just as human children learn by copying their mothers, chimpanzee mothers also impart behaviors to their children, according to a study of chimp grooming styles in [Current Biology](#). Researchers observed eight populations of chimps, noting how often pairs of chimps in each group did something called "high-arm grooming," in which they raised and clasped their hands. Not all chimps do it, and researchers had previously wondered whether it signified a particular social relationship between two chimps, or varied by age or sex. Instead, the new study found that the only pattern linking the behavior was through the matrilineal line—chimps whose mothers were high-arm groomers continued the behavior, in some cases even decades after their mothers had died.

Women in STEM



Women in science, technology, engineering and mathematics (STEM) fields are more likely to work with new collaborators than male scientists are, finds a study in [PLOS Biology](#). Researchers analyzed the publication

records of 4,000 male and female faculty members in six disciplines—psychology, chemical engineering, chemistry, ecology, materials science and molecular biology. In all the disciplines except materials science, women were less likely than male peers to repeat collaborations. Working with new collaborators tends to produce work with greater impact, previous research has found