

CONTROVERSY

How will the court rule?

p.6



Justice Anthony Kennedy

HEALTH & SCIENCE

Why popcorn is now health food

p.23



PEOPLE

Carrying on without Clarence

p.10



Bruce Springsteen

THE WEEK

THE BEST OF THE U.S. AND INTERNATIONAL MEDIA

Last man standing

But is Romney too bruised to beat Obama?

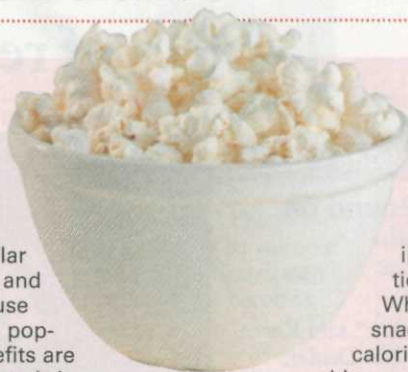
p.4



The health benefits of popcorn

Popcorn offers more than crunch and empty calories. A new study shows that the snack food is more nutritious than fruits and vegetables in some respects—provided you don't slather it with butter and salt. Researchers at the University of Scranton in Pennsylvania ran tests on several different popcorn brands and found that the hulls—the tough fragments that can get stuck in your teeth—contained surprisingly high levels of antioxidants called polyphenols, which have been found to reduce the risk

of cancer and heart disease. A serving of popcorn provides more than twice the polyphenols as a similar serving of most fruits and vegetables, and because it contains little water, popcorn's nutritional benefits are more highly concentrated. As a whole grain, popcorn also boasts higher concentrations of fiber than cereals or breads do. "Popcorn may be the perfect



snack food," study author Joe Vinson tells *ScienceDaily.com*, and the hull fragments in particular are "nutritional gold nuggets."

When air-popped, the snack contains far fewer calories than snacks like chips or trail mix. Popcorn does, however, lack the important vitamins and minerals that are packed into foods like broccoli and bananas.

How words evolve

Whether a word lives or dies depends on laws of natural selection much like those that shape the fate of living species, a new study shows. Researchers analyzed more than 5 million books, written over the last two centuries in English, Spanish, and Hebrew, that had been scanned into Google's vast database. They found that while the English language is still growing at a rate of about 8,500 words per year, the birth rate of new words is slowing—and the death rate increasing.

Newly coined words tend to achieve widespread circulation faster than they used to, because



they are more likely to describe major innovations such as "Twitter" and "iPod." Meanwhile, in the "inherently competitive, evolutionary environment" of languages, dying terms are losing a Darwinian battle against more popular "synonyms, variant spellings, and related words," study author Joel Tenenbaum, a Boston University physicist, tells *The Wall Street Journal*. The catchier term "X-ray," for instance, put its synonym "roentgenogram" out of business; "persistence" has been choked off by "perseverance." Once a word is born, Tenenbaum found, it has between 30 and 50 years to either take hold or disappear.

Mercury's hidden secrets

Mercury, the smallest planet in the solar system, is turning up some unusual surprises. New data from the Messenger spacecraft, which has been orbiting Mercury for the past year, reveal that the planet's dense iron core is far larger than expected, making up almost 85 percent of its radius; Earth's core, in comparison, accounts for only 50 percent. What's

more, Mercury appears to have "an interior structure unlike any other terrestrial planet" that we know of, MIT geophysicist Maria Zuber tells *Time.com*. Rather than the usual two layers, its core is composed of three: solid iron, a liquid iron layer, and a solid iron-sulfur shell. Messenger's close look at Mercury's crinkled surface suggests that the planet has shrunk, and may have remained geologically active far longer than was previously thought. Unknown subterranean forces have pushed up the floor of a massive crater, the 900-mile-wide Caloris Basin—a phenomenon researchers have spotted nowhere else in the solar system. The "spectacularly baffling" data from Messenger, Zuber says, also suggest that water frozen as ice may exist in craters at Mercury's poles.

Natural selection by famine

Going hungry makes pregnant women more likely to bear girls, a new study shows. Researchers analyzed data on the more than 300,000 Chinese women who gave birth in the decades just before and during China's Great Leap Forward famine, which killed at least 30 million people between 1959 and 1961. Before the famine, the proportion of male births had been on the rise, but after about a year of starvation conditions, that trend dramatically reversed, and more daughters were born than sons. That may be because, in evolutionary terms, "investment on male children is a high-risk, high-return game," demographer Shige Song of the City University of New York tells *LiveScience.com*. In most species, including humans, a healthy male can produce more offspring than a healthy female can. But if malnourished, males often fail to reproduce at all, while females are more

likely to continue passing on their genes. It's not clear how lack of food affects the sex of a fetus, but there is some evidence that it triggers immediate biological changes. For instance, babies conceived during the month of Ramadan, when Muslims fast during daylight hours, are more likely to be girls than babies conceived during the rest of the year are.

Health scare of the week Big trouble with ticks

Warmer-than-normal spring temperatures are allowing ticks to become active earlier than usual, auguring an increase in tick-borne illnesses, experts warn. "This is going to be a horrific season, especially for Lyme [disease]," Leo J. Shea, a professor at the Rusk Institute of Rehabilitation Medicine, tells *The Wall Street Journal*. Lyme's indistinctive symptoms—fever, extreme fatigue, chills, and headaches—make it difficult to diagnose. Yet left untreated, it can cause long-term damage to many parts of the body, including the brain, heart, and muscles. Over the past 20 years, known Lyme disease cases have doubled, but most infections are going undiagnosed, the Centers for Disease Control and Prevention reports. In addition to Lyme disease, ticks carry babesiosis, Rocky Mountain spotted fever, and anaplasmosis—all of which are also on the rise—and a single bite can transmit more than one infection. Researchers say rates of the diseases have increased as more people move into tick territory and as global warming allows Southern tick species to spread northward. To avoid bites, experts recommend wearing long sleeves and insect repellent when walking in wooded areas, and to closely inspect pets after time outdoors.



A hungry Chinese refugee