Facts and ideas from anywhere

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MAJOR PERSONALITY TYPES

In the late 1970s, while I was a visiting professor of cardiology at Duke University, I learned of the book titled *The Achievers: Six Styles of Personality and Leadership* by Gerald D. Bell (1), a professor in the School of Business at the University of North Carolina, Chapel Hill. The book had a major impact on me. I found its insights to be useful in my dealings with other

people and as a consequence bought many copies for family, colleagues, and friends. While attending the American Osler Society meeting in Chapel Hill in April 2012, nearly 40 years after first learning about Bell's book, I was fortunate to meet the author, who was having a leadership conference also at the Carolina Inn. Professor Bell signed one of his books for me, and I enjoyed immensely speaking with him for a few minutes.

In his book, Bell described six personality styles: *the Commander, the Attacker, the Avoider, the Pleaser, the Performer, and the Achiever*, and he also described how to deal with each. He emphasized that we all have parts of these personalities within us but usually one of them dominates. The Figure summarizes in part the characteristic features of each of these personalities.

The Commander: This person demands an orderly environment. He or she is domineering, uses categorical thinking, sees only one aspect of communication, is close-minded, is self-disciplined, has a routine sexual style, performs well in orderly situations, sets high goals but takes below-average risks, and has moderate psychological health.

The Attacker: One of the six or seven publishers I have dealt with during my 30 years as editor of *The American Journal of Cardiology* was an attacker. I learned (from Bell) how to deal with an attacker. Bell's advice was to attack back. I did so and we became friends. The attacker, according to Bell, is shaped by a domineering, inconsistent, and harsh environment. The attacker is defiant, hostile, rejects responsibilities, acts uncommitted, gives variable commitment, disrupts, imputes evil to others, makes everything an emergency, forms an attack squadron, seldom admits being wrong, is cold personally, has an aggressive

Figure. The six-M personality diamond.

sexual style, performs well in independent jobs, and has poor psychological health.

The Avoider: One of my bosses at the National Institutes of Health was an avoider. He told me one time to never make a decision until I was pressed against the wall and had to. Bell taught how to deal with that personality: Simply do not take issues to him on which he has to make decisions. I did that, and my boss and I became good friends. According to Bell, the avoider was raised in a fearful and overprotected environment, has low self-confidence, takes few risks, procrastinates, is dependent, is a nonexplorer, is unable to totally give of himself or herself in a relationship or freezes at the thought of intimacy, does not like feedback, performs well in easy jobs, and has poor psychological health.

The Pleaser: I also dealt with a pleaser for many decades and learned from Bell's book how to deal with one: let them please you. The pleaser's training environment is overcaring.

He or she needs to be accepted, is “other-directed,” is highly persuadable, tends to be passive in lovemaking, has a reservoir of people-pleasing talents (releases tension with good humor, is sensitive and kind, is the “good guy”), performs well in social tasks, and has average psychological health.

The Performer: This is the dominant personality style in the US, making up just over 40% of the administrators and managers in the country. The performer’s training environment stresses being successful and proper. The performer is an explorer, is skillful at manipulation, uses pseudoparticipation, is a deal-king, engages in joint-image management, takes credit for successes, parcels out compliments, uses anticipatory socialization (develops skills in learning the norms of the status group above him and then acts as they do to be accepted more quickly by them), uses proper timing, is an inside dopest, is counter-clever and is a good one-upsmen, is hard to pin down—a fence-sitter, masters sensation transference (the process of transferring first impressions about an object into feelings about its contents), controls information, is purposefully courteous, dresses properly (perfectly groomed, fashionably dressed), selects proper friends, acquires proper knowledge (reads the latest books, sees the current “in” movie, knows the most popular music, uses proper habits, disguises his efforts), does not appear to be straining to look good—not too eager, and uses protective devices (shifts from one group to another, never gets close to others because it is exhausting to be on guard at all times around close associates). He uses two aspects of communication (what he says, the verbal part, and what he does, the nonverbal part). There is a lack of consistency between what he or she says and does; his sexual style is fleeting and distant and without intimacy; he bends the truth (uses false flattery, uses false modesty, lies to himself); he does well in prestigious jobs (when a first impression is important, when a flashy, polished image gets the job done, and when the positions are challenging and prestigious), and he has average psychological health.

The Achiever: I think the word used to describe this person is not quite accurate, but this is the ideal personality type. The achiever’s environment warmly encourages independence. He or she has high self-confidence (is self-directed and nondefensive, has an acute awareness of inner feelings), is spontaneous and natural, is self-reliant (self-contained), is goal-oriented, is problem-centered instead of self-centered, is creative (an explorer), has deep genuine human relationships (feels without fear, is content, has compassion, is ethical, has fun), performs meaningful and challenging jobs well (is realistic), develops intelligence, and is 100% psychologically healthy. Bell opines that the only really successful marriages are between two achievers.

COMMONALITY IN GREAT LEADERS

Jack Welch, one of the great chief executive officers of the last century, and his wife, Suzy, ask “What do great leaders have in common?” (2). Their answer: *authenticity*. That makes people like you, trust you, and follow you. (He actually describes Bell’s achiever.) They speak of “guarded behavior” as something that may minimize the ire of your enemies, but

it doesn’t energize anyone either. They stress that leaders let go of the fear of offending people and embrace the authentic side. They offer a short list of “stuff authentic people say.” First, Jack and Suzy quote Popeye, who stated that authentic people give you some version of “I yam what I yam and that’s all that I yam.” Authentic people are deeply comfortable with themselves; they acknowledge without phoniness where they have come from and who they have become, both the good and the not-so-good, through life’s accidents and their own hard work and ambition. Second, authentic people say “I love” a lot. You name it, they are emoting about it. By the same token, authentic people also tend to throw around “I hate” quite a bit. They are overtly passionate. Maybe being candid gives you self-confidence—you are not hiding anything—and that self-confidence allows you to be exuberant about your beliefs, values, and opinions. Third, authentic people are not afraid to say “I screwed up, and I’ve been down, and it was awful.” Authentic people seem to relish describing their mistakes in detail.

INTRIGUING HEALTH QUESTIONS

Catherine Price asked a number of medical experts some intriguing questions and recorded their answers (3). Here are some selections:

- 1) *Why do I get goosebumps during scary movies?* Goosebumps are produced by piloerection, a reflex that contracts the muscles around the base of each hair follicle, causing the hair to stand up and small bumps to emerge. Back when humans were hairier, piloerection had two benefits: it helped in keeping people warm by trapping heated air close to the skin, and in scary situations, it made them look bigger and more threatening. Watching a horror flick in an air-conditioned theater provides the perfect setup for piloerection. One is not only frightened but also probably cold.
- 2) *Why does it seem as if mosquitoes bite me preferentially?* The bloodsuckers are drawn to a tasty dinner by a variety of signals, including heat, carbon dioxide, movement, and the smell of skin secretions, like lactic acid. One study found that mosquitoes prefer people who have recently drank a beer. No one knows what precise combination mosquitoes find the most irresistible.
- 3) *Why do men get more hair in some places and less in others as they get older?* The “George Costanza effect” is a common sign of aging. It’s caused by dihydrotestosterone, a sex hormone to which some men are genetically predisposed to become sensitive. When that sensitivity develops, the hormone often causes the hair follicles on the head to shrink and follicles elsewhere, like on the back or in the ears or nasal passages, to become stimulated.
- 4) *What are hiccups, and how can one stop them?* A hiccup is an involuntary contraction of the diaphragm and the muscles between our ribs. A bout of hiccupping is usually the result of overeating or drinking carbonated beverages. (Other causes include sudden excitement, stress, or too much alcohol.) Traditional remedies for bouts include holding our breath, sipping cold water, gurgling, swallowing a teaspoon

of dry sugar, gently pressing on our eyeballs, or leaning forward to compress our chest. Those with hiccups lasting >48 hours should see a physician. (I remember as a medical student seeing a hospitalized patient who had had hiccups constantly for 3 weeks. She was about the most exhausted human being I had ever seen.)

- 5) *Why does my nose run when it's cold outside?* Our nose helps perform a kind of climate control by heating and humidifying the air that we inhale so that it better matches the moist, warm conditions inside our lungs. Glands in our noses produce secretions that add moisture, and blood vessels in our nose dilate to warm the incoming air, acting like miniature radiators. When we breathe super-frigid air, those phenomena are amplified. Cold air tends to be drier, causing the glands in our nose to produce more secretions, and when we exhale warm, moist air out into the cold wind, some of the moisture condenses into droplets of water, which collect at the tip of the nose.
- 6) *Why do I huff and puff climbing stairs when I can easily run a mile on a treadmill?* As anyone who has used a rolling suitcase knows, it's a lot easier to pull a heavy object along a flat surface than it is to pick one up. When running on a treadmill, we barely lift any of our body weight up and down. Walking up a typical 45-degree staircase, on the other hand, requires moving 70% of our body weight against gravity.

ANTIBIOTICS IN FARMS

In March 2012, a federal court judge in Washington, DC, ordered the Food and Drug Administration (FDA) to take action on its own 35-year-old rule that would stop farmers from mixing antibiotics into animal feed, a practice that has led to a surge in drug-resistant bacteria (4). In 1977, the FDA concluded that the overuse of antibiotics in livestock, poultry, and other animals weakened the treatment's effectiveness in humans. The agency at that time issued an order that would have banned nonmedical use of penicillin and tetracycline in farm animals unless drug makers could show that the drugs were safe. But the rule was not enforced after vigorous opposition from Congress and lobbyists for the agriculture and drug industries. Judge Theodore Katz said the FDA must now begin steps to withdraw approval of antibiotics for routine use in animals, siding with four consumer-safety groups that brought a lawsuit against the agency. The court ruling, unfortunately, will not immediately halt the use of antibiotics in farms. The FDA must first give drug companies a chance to respond and schedule a public hearing.

Nearly 80% of all antibiotics sold in the USA are given to farm animals used in food production! Farmers mostly use the drugs in healthy animals to spur growth and to keep them from getting sick in crowded, unsanitary feedlots. Nevertheless, after constant use, some animals develop organisms that are immune to antibiotics. These germs, often called "superbugs," can then pass to farmworkers and their families or blow into neighboring communities in dust clouds or runoff into lakes and rivers during heavy rains or sometimes contaminate steaks and chops we eat. So, 35 years later, some effort is under way.

HOSPITALS CLOSING

According to the book *The New Health Age: The Future of Health Care in America* by David Houle and Jonathan Fleece, of the approximately 5764 registered hospitals in the USA in 2011 (housing 942,000 hospital beds along with 36,915,331 admissions), about one third will be closed or reorganized into entirely different types of health care service providers by 2020 (5). Hospitals make substantial imprints in the US; many are one of their community's largest employers and economic drivers. Of the total annual American health care dollars spent, hospitals account for more than \$750 billion.

Several factors drive this "inevitable and historical shift." First, the US must bring down its health care costs. The average American worker costs his or her employer \$12,000 annually for health care benefits, and this figure is increasing more than 10% every year. US businesses cannot compete in a globally competitive marketplace at this level of spending. Additionally, federal and state budgets are getting crushed by the cost of health care entitlement programs, such as Medicare and Medicaid. Hospitals, as a consequence, are vulnerable since they make up the highest percentage of health care costs in the USA. These authors suggest that health care reform will make connectivity, electronic medical records, and transparency commonplace in health care. This may mean that any American in the near future considering a hospital stay will go online to compare hospitals' relative infection rates, degrees of surgical success, and many other metrics. They suggest that the hospital market will become more open and competitive.

FIVE THINGS PHYSICIANS AND PATIENTS QUESTION IN CARDIOLOGY

The American College of Cardiology provided a list of five things for physicians not to do (6). 1) Don't perform stress cardiac imaging or advanced noninvasive imaging to evaluate patients without cardiac symptoms unless they have very high-risk markers. 2) Don't perform annual stress cardiac imaging or advanced noninvasive imaging for routine follow-up of asymptomatic patients. 3) Don't perform stress cardiac imaging or advanced noninvasive imaging for operative assessment in patients scheduled to undergo low-risk noncardiac operations. 4) Don't perform echocardiography as routine follow-up for mild, asymptomatic valvular disease in adults with no change in signs or symptoms. 5) Don't perform stenting of nonculprit lesions during percutaneous coronary intervention for uncomplicated hemodynamically stable ST-segment elevation myocardial infarction.

DEMENTIA IN PRISONS

Dementia in prisons is a fast-growing phenomenon, one that many prisons are unprepared to handle (7). It is a consequence of long sentences that have created a large population of aging prisoners. According to Pam Belluck of *The New York Times*, about 10% of the 1.6 million inmates in US prisons are serving life sentences, and an additional 11% are serving >20 years. And, many older people are being sent to prison. In 2010, a total of 9560 people aged ≥55 were sentenced, more than twice

as many as in 1995. Also in 2010, the number of inmates ≥ 55 years almost quadrupled to nearly 125,000. Thus, the dementia population in prisons is obviously growing.

Many prisons would like to transfer inmates with dementia to nursing homes, but these individuals are often violent criminals, making states reluctant to parole them and nursing homes reluctant to take them. New York has established a separate unit for cognitively impaired inmates and uses professional caregivers at a cost of about \$93,000 per bed annually compared with \$41,000 in the general prison population. Other states, notably Louisiana and California, train prisoners to handle many of the impaired inmates' daily needs. These caregiving prisoners also protect inmates with dementia from prisoners who may try assaulting, abusing, or robbing them. Problems, problems.

MEDICAL TATTOOS

Some medical tattoos are taking the place of bracelets that list a person's allergies, chronic diseases, or even end-of-life wishes (8). Recently, a photograph was published of a physician who had "No CPR" tattooed over his sternum. Another had "type I diabetic" tattooed on her left forearm. But, medical tattoos do not appear to carry much legal weight. The National Tattoo Association, a nonprofit group that raises awareness about tattooing, does not track the number or styles of tattoos. A spokesman for the association, however, said he does about one medical tattoo a year at his shop in Orlando. Nine out of 10 medical tattoos relate to an allergy—usually, to penicillin or peanuts.

TEEN BIRTHRATES

US birthrates for teens aged 15 to 19 years in all racial and ethnic groups are the lowest since 1946 (9). In 2010, there were 34 births per 1000 teens, down from 62 births per 1000 teens in 1991. The all-time high was 96 during the Baby Boom year of 1957. The birthrate for Asian teens was 11; for whites, 23; for blacks, 51; and for Hispanics, 56. The report showed no change in the percentage of sexually active teen girls but significant increases in the use of contraception. The report also noted a decline in the percentage of teenage girls "who said they wanted to get pregnant." Good news.

VOLUNTEER DOCTORS AT ATHLETIC EVENTS

At running races and triathlons, volunteer doctors are getting fewer, and the reason appears to be an inability to get 1-day malpractice insurance to serve participants at these events (10). In 2011, 13 Americans died during running races and another eight died while competing in triathlons. About 13 million Americans enter running races each year, and 2.3 million compete in triathlons. The rising number of participants highlights the need for quality medical care at these events, and that usually comes from volunteer physicians. In the April 16, 2012, Boston Marathon, 27,000 started the race. About 70 physicians and 1300 first-aid volunteers, including nurses, medical students, and physical therapists, were on hand. About 1500 runners required some level of medical attention during or

immediately following the race. Despite the worry about malpractice insurance, no American physician has been named in an event-related lawsuit, apparently because plaintiffs typically go after race organizers, who have deeper pockets. The Good Samaritan laws cover physicians only if they are bystanding fans and not official event volunteers.

Because of the shortage of physicians at these events, the World Road Race Medical Society and the medical director for the Chicago Marathon teamed with USA Track and Field and Sports Insurance Company to create policies specifically for volunteer medical teams. Beginning in 2009, all five major US marathons—Chicago, New York, Twin Cities, Boston, and Houston—bought the plan at a cost of \$50 to \$60 per physician. The US Triathlon began offering the program in 2011. But even at the \$60 per-physician cost, not all event-marketing companies have jumped on board to cover their physicians. Some large adventure races hire paramedic services to be on standby. Still, smaller events use uninsured volunteers. There seems to be very few things where lawyers are not involved.

SOME AMAZING ATHLETES OVER 40 YEARS OF AGE

A recent article (11) highlighted numerous athletes over the age of 40. Here are some of the better-known examples:

- *George Foreman*: He earned the heavyweight crown at age 25 and successfully defended it twice before losing to Muhammad Ali in 1974. At age 45 (1994), he regained the title.
- *Nolan Ryan*: At age 44 he threw his seventh no-hitter.
- *Jack Nicklaus*: The "Golden Bear" at age 46 won his sixth Master's golf tournament and 20th major.
- *Dara Torres*: At age 41, she became the oldest swimmer ever to qualify for the Olympics and won three silver medals.
- *Martina Navratilova*: At age 49 and 11 months, she won her 49th Grand Slam title by winning the US Open mixed doubles tournament.
- *Kareem Abdul-Jabbar*: The 19-time NBA All Star led the Los Angeles Lakers to back-to-back titles after turning 40.

ELDERLY DRIVERS

They are safer than the younger ones. A recent 3-year study by the Insurance Institute for Highway Safety involving 1437 drivers aged ≥ 75 years found a decline of 45% in fatal accidents per 100 million miles traveled—a greater reduction than that in any other age group (12). Drivers ≥ 85 years still have a higher rate of deadly crashes than any other age group except teenagers. That is partly because seniors tend to avoid highway driving, where crash rates per mile are lower. Also, the older drivers are more likely than the younger ones to die in crash accidents because they tend to be more frail. Safe driving courses for older drivers are available through AARP and AAA. Many states require them, and most mandate insurance-premium discounts for seniors who take them. A free car assessment program, called "CarFit," cosponsored by AAA, AARP, and the American Occupational Therapy Association, is available in most states to help seniors adjust or modify their vehicles to be safer. Seniors, don't let anyone take those car keys away.

VACATION ACCIDENTS

I have become more conscious in recent times of accidents occurring during vacations. On a recent trip to Europe, while taking a picture, I twisted my knee and when visiting a museum I tripped and fell on the same knee. My walking has not been the same since. Vacations can be dangerous. A recent piece on deadly avalanches caught my attention. An avalanche in Washington State killed three skiers, and a fourth was saved by a safety device, a special backpack airbag system (13). The handle on the shoulder strap was pulled and a high-pressure cylinder filled with compressed air inflated the airbag. The airbag made the skier lighter and the skier floated to the surface of the avalanche and survived. It is called an avalanche airbag backpack. The airbag keeps the skier closer to the top of the avalanche. So far in 2012, 17 people, all in the western US mountains, have been killed by avalanches. In the past 10 years, an average of 25 people die per year in avalanches in the USA. Nearly all are exclusively winter sport enthusiasts exploring the back country—deep snow outside the boundaries of ski resorts. They include snowmobilers, climbers, snowboarders, snowshoe skiers, and hikers. These avalanche airbag backpacks cost from \$600 to \$1000. Sounds like good insurance to me.

WEATHER AND CLIMATE DISASTERS IN 2011

Tornadoes, droughts and fires, storms and flooding, and hurricanes contributed to a record 14 weather and climate disasters in the USA in 2011 that caused \$1 billion or more in damage (14). Previously, the largest number of disasters was nine in 2008 and eight in 1998. The total cost for US natural disasters in 2011 was \$55 billion, nowhere near the \$160 billion price tag in 2005 (\$144 billion of which was contributed by Hurricane Katrina). Although the cost was relatively low, 669 people died in these 2011 weather disasters. Half of these billion-dollar events were tornadoes, causing 551 fatalities. The Joplin, Missouri, tornado alone killed 161 people, the deadliest single tornado strike in the US since modern recordkeeping began. From spring to fall, heat and a lack of precipitation caused droughts and wildfires in the South. By the end of July, 84% of the southern plains had moderate to exceptional drought. In Texas, over 3 million acres were burned. Persistent rainfall, nearly 300% of normal precipitation amounts in the Ohio Valley, paired with melting snow caused historic flooding along the Mississippi, Missouri, and Souris Rivers. Seven states saw a record year. It was rain, not wind speed, that caused damage in 2011 from Hurricane Irene and Tropical Storm Lee. The Northeast saw extensive flood damage. Let's hope 2012 is better.

DRIEST YEAR IN TEXAS HISTORY

The driest year in Texas history (2011) caused a record \$7.62 billion in agriculture losses, billions more than previously estimated (15). Texas is the nation's number three producer of agricultural products, behind California and Iowa, so when crops and cattle fail in the Lone Star State, prices rise nationally. The drought has cost Texas more than \$14 billion in agricultural losses since 1998. Many ranchers sold off or slaughtered cattle

after ranch lands dried up and the price of hay skyrocketed. The state now has its smallest herd since the 1950s after losing about 660,000 cows during the drought. Cattle account for about half of Texas' agricultural production, which makes up 9% of its economy. Cotton losses are estimated at \$2.2 billion and corn losses at \$736 million. The remaining losses were largely in hay, wheat, and sorghum production. Let it rain.

THE JAPANESE DISASTER—A YEAR LATER

The massive earthquake and tsunami that struck Japan on March 11, 2011, killed >19,000 people and unleashed the world's worst nuclear crisis in >25 years (since Chernobyl) (16). The quake, a 9.0 on the Richter scale, was the strongest recorded in Japan's history. It set off a tsunami that inundated >50 square miles of land along 500 miles of the eastern coastline and damaged 29 railroads, 45 dikes, 78 bridges, nearly 4000 roads, and over 1,100,000 properties, 36,000 of which were inundated. Still today, some 325,000 people left homeless remain in temporary housing. While much of the debris has been gathered into massive piles, very little rebuilding has begun.

The Japanese government says that the damaged Fukushima Daiichi nuclear plant, where three reactor cores melted down after the tsunami knocked out their vital cooling systems, is stable and that radiation coming from the plant has subsided significantly. The plant remains, however, in a fragile state. Only two of Japan's 54 reactors are now running, while those shut down for regular inspection undergo special tests to check their ability to withstand similar disasters. They all could go offline by May 1, 2012, if none are restarted before then. The Japanese government has pledged to reduce reliance on nuclear power, which supplied almost 30% of the nation's energy needs before the disaster. The magnitude of that disaster is difficult to comprehend.

WASTED FOOD

CleanMetrics Corp, a software firm that analyzes the environmental impact of products and businesses, has found that vegetables are the most commonly wasted food in US homes, making up 25% of avoidable waste (17). Most grocery shoppers create food waste by overbuying. People tend to overestimate what they need at the store when they are well stocked at home and to underestimate what they need when they don't have enough. The average US family of four spends \$500 to \$2000 on food each year that ends up in the garbage. Of trash in a home, fruit and juices make up 16%; milk and yogurt, 13%; vegetables, 25%; and grains, 14%. Just over half of avoidable food and drink waste comes about because products were not used in time. About 40% of this waste is made up of leftovers, characterized as "cooked, prepared, or served too much." In the US, fears about foodborne illness and confusion about product "sell-by" dates are to blame for some food waste. In the UK, food waste is a public concern and a rallying point for politicians and corporations, similar to the issue of childhood obesity in the US. In recent years, UK grocery stores have tested ways to discourage overbuying, including "buy one, get one later" promotions at various chains. Today, spending on restaurant

and take-out meals makes up about half of food expenditures in the USA. That probably decreases the scraps.

NOW IT'S THE PACIFIC OCEAN

Ben Lecomte in 1998 became the first person to swim across the Atlantic Ocean (18). A native of France, but now a US citizen, Lecomte undertook the 73-day, 3700-mile journey to raise money for cancer research in memory of his father, who died of colon cancer in 1991. He moved from France to Texas when he was 23 years old. Now, Lecomte, age 44, an alumnus of the University of Texas at Arlington, is training for his next adventure—a swim across the Pacific Ocean. His planned route is 5400 miles long. He hopes to start in May 2012 and finish in <6 months. His plan is the following: He will average about 40 miles a day, swimming 8 hours in two 4-hour segments. He will have a GPS device, which will help him when he takes breaks in the boat that will trail him; he will be able to start again exactly where he stopped. Aside from meals, he will have energy bars and fresh water. As with his first transoceanic swim, he will dedicate the adventure again to his father, who taught him how to swim. He will take on the Pacific, with the sharks and jellyfish and 30-foot swells.

DANIELLE STEEL

She has sold more than 800 million copies of her 100-plus books worldwide, 600 million in the US alone! Her novels have been on *The New York Times* bestseller list for 400 consecutive weeks, and 22 have been adapted for television (19). She often is writing, editing, or researching five books at a time, and she publishes three a year. She is a mother to nine children! Also, she is an avid art collector. She writes every day. She indicates that she had a horrible childhood, so as a little girl reading was her escape. When she turned 19 she started writing more books than she was reading. Now at the age of 70, writing is still an escape, she indicates, and she says that she is never lonely.

LATE DIVORCES

Although overall national divorce rates have declined since spiking in the 1980s, “gray divorce” has risen to its highest level on record (20). In 1990, only 1 in 10 people who got divorced were aged ≥50 years; by 2009, the number was 1 in 4. More than 600,000 people aged ≥50 years got divorced in 2009. A 2004 national survey found that women are the ones initiating most of these breakups: among divorces by people aged 40 to 69, women reported seeking the split 66% of the time. Cheating does not appear to be the driving force in “gray divorce.” In the same 2004 survey, infidelity was cited by 27% as one of the three top reasons for seeking a divorce, a figure not out of line with estimated infidelity as a factor in divorce in the general population. The reason for these late divorces is unclear, but it springs at least in part from boomers’ status as the first generation to enter into marriage with goals largely focused on self-fulfillment. Some marriages that in previous generations would have ended in death now end in divorce. In the past many people did not live long enough to reach the 40-year itch.

According to Susan Brown and I-fen Lin of Bowling Green State University, among people aged ≥50 years, the divorce rate has doubled over the past 2 decades. Professor Brown describes three phases of American views of marriage in the past century. First was the *institutional* phase, in the decades before World War II, when marriage was seen largely as an economic union. In the 1950s and 1960s, the *companionate* phase appeared, in which a successful marriage was defined by the degree to which each spouse could fulfill his or her role. Husbands were measured by their prowess as providers and wives by their skills in homemaking and motherhood. In the 1970s, the boomers initiated the *individualized* phase, with an emphasis on the satisfaction of personal needs—a more egocentric focus.

For many boomers, a late divorce is not their first marital split. Of the people >50 now getting divorced, 53% have done so at least once before. Having been married previously doubles the risk of divorce for those aged 50 to 64, and, for those aged ≥65, the risk factor quadruples. For boomers who have had trouble maintaining commitments in the past, hitting the empty-nest phase seems to trigger thoughts of mortality and of vanishing possibilities for self-fulfillment. Professor Brown predicts that the number of over-50 divorces by 2030, based on current trends, could top 800,000 per year.

NET WORTH OF US PRESIDENTS

In today’s dollars, the following is the net worth (in millions) of some US presidents (21): George Washington (1789–1797), \$525; Andrew Jackson (1829–1837), \$119; John F. Kennedy (1961–1963), \$1000; Lyndon B. Johnson (1963–1969), \$98; Herbert Hoover (1929–1933), \$75; Franklin D. Roosevelt (1933–1945), \$60; William J. Clinton (1993–2001), \$38; and George W. Bush (2001–2008), \$20. The financially deprived: Ulysses S. Grant (1869–1877), Thomas Jefferson (1801–1809), Abraham Lincoln (1861–1865), and Harry S. Truman (1945–1953). Mitt Romney’s net worth is estimated at \$250, and Barack Obama’s, \$5.

BILLIONAIRES IN THE USA

California has 94 billionaires; New York, 70; Texas, 48; Florida, 29; Illinois, 18; Michigan, 12; Connecticut, 11; Wisconsin, 10; Maryland, 9; and Washington, 8 (22). There are no physicians on the list, although Carl Icahn was a medical school dropout. The richest family in the USA is the Waltons, of Wal-Mart fame, divided among Christy, Jim, Alice, and Robson Walton. The wealthiest single individual in the USA is Bill Gates, with \$61 billion from Microsoft, and next, Warren Buffet, with \$44 billion from Berkshire Hathaway. The richest in the world is Carlos Slim Helu and family in Mexico, worth \$69 billion.

ATTRACTIVE CITIES

The “hot-spots” survey, sponsored by CitiGroup, attempts to measure how attractive a city is to talent, capital, tourists, and businesses (23). The top 25 attractive cities are listed in the *Table*. Dallas tied for 25th with Vienna. New York was number

Table. The “hot spots”: world cities’ attractiveness for talent, capital, tourists, and businesses*

Rank/city	Score [†]
1. New York	71.4
2. London	70.4
3. Singapore	70.0
T4. Hong Kong	69.3
T4. Paris	69.3
6. Tokyo	68.0
7. Zurich	66.8
8. Washington	66.1
9. Chicago	65.9
10. Boston	64.5
11. Frankfurt	64.1
12. Toronto	63.9
T13. Geneva	63.3
T13. San Francisco	63.3
15. Sydney	63.1
16. Melbourne	62.7
17. Amsterdam	62.4
18. Vancouver	61.8
19. Los Angeles	61.5
T20. Seoul	60.5
T20. Stockholm	60.5
22. Montreal	60.3
T23. Copenhagen	59.9
T23. Houston	59.9
T25. Dallas	59.8
T25. Vienna	59.8

*Adapted from Economist Intelligence Unit. *Hot Spots: Benchmarking Global City Effectiveness*. London: Author, 2012:6. Available at <http://www.citigroup.com/citi/citiforcities/pdfs/hotspots.pdf>.

[†]Out of 100.

1, and London was number 2. Houston, Copenhagen, and Denmark tied for 23rd.

VACATIONING AT THE BEST HOTELS IN THE USA

According to a piece by Betsa Marsh (24), here are the top US hotels: The Greenbrier, White Sulphur Springs, West Virginia; The Grand Hotel, Mackinac Island, Michigan; West Baden Springs, French Lick, Indiana; Casa Monica, Saint Augustine, Florida; US Grant Hotel, San Diego, California; and Mohawk Mountain House, New Paltz, New York.

NEW LONDON, TEXAS, 75 YEARS AGO

In the 1930s, the Great Depression was in full swing, but the New London School District in New London, Texas, was one of the richest in the USA. A 1930 oil find in Rusk County had boosted the local economy, and educational spending grew with it. The New London School, a large structure of steel, was constructed in 1932 at a cost of \$1 million (about \$17 million in 2012 dollars). Its football stadium was the first in Texas to have electric lights. The school was built on sloping ground, and

a large dead-air space was contained beneath the structure. The school board had overridden the original architect’s plans for a boiler and steam distribution system, instead opting to install 72 gas heaters throughout the building.

Late in 1936, the superintendent, with quiet approval from four board members, disconnected the school from commercial natural gas and tapped into a free unregulated and widely available byproduct of gasoline refining: waste natural gas. The switch would save the school district, perhaps the richest school district in the USA in 1937, \$250 per month. Refineries pumped the waste gas back to oil rigs, where rig operators were required to dispose of it. Most released it into the air through tall pipes and burned it, lighting the night sky with orange flames. One of these waste gas lines passed 200 feet from New London School. The connection to the waste gas line was performed in early January 1937 by a school janitor, two bus drivers, and a welder that the school had hired.

On March 18, 1937, students prepared for the next day’s interscholastic meet. At the gymnasium, the PTA met. At 3:17 PM, an instructor of manual training turned on a sanding machine in an area which, unknown to him, was filled with a mixture of gas and air. The switch ignited the mixture and carried the flame into a nearly closed space beneath the building, 253 feet long and 56 feet wide. Immediately, the building seemed to lift in the air and then smashed to the ground. Walls collapsed. The roof fell in and buried the victims in a mass of brick, steel, and concrete debris. The explosion was heard 4 miles away, and it hurled a 2-ton concrete slab 200 feet away.

Fifteen minutes later, the news of the explosion had been relayed over telephone and Western Union lines. Physicians and medical supplies came from Baylor Hospital in Dallas and from surrounding towns. Workers began digging through the rubble looking for victims. Flood lights were set up. The rescue operation continued through the night. Within 17 hours, all victims and debris had been taken away. Of the 500 students and 40 teachers in the building, 298 died. Only 130 students escaped serious injury. It was the worst school disaster in American history. The news spread around the world. Even Adolph Hitler sent condolences.

Today, fewer than 1000 live in New London. It contains a few buildings and houses; a convenience store that sells gas, microwave pizzas, sandwiches, lotto tickets, and a few groceries; a small bank branch office; a donut shop; and two churches. On a small island in the middle of State Highway 42, there is a pink granite cenotaph complete with classical figures carved into the apex. It is an imposing monument, particularly for a tiny town, flanked on one side by the school and on the other by a combination of café, soda fountain, and museum.

Two books on this disaster appeared in 2012 (25, 26). Saving money sometimes costs a lot of money and even lives.

RMS *TITANIC*: 100 YEARS LATER

On April 12, 1912, the RMS *Titanic* embarked on its maiden voyage, sailing from South Hampton, England, to New York City (27). It was the largest and most luxurious passenger liner ever built, and it was also considered “unsinkable.” On April

14, however, the ship struck an iceberg, and 2.5 hours later it sank. Of the approximately 3000 people on board, about 1500 perished. Because of the tragedy, the *Titanic* became perhaps the best known ship in the world, capturing the public's imagination and inspiring books and movies. After the 1985 discovery of its wreckage, interest in the famed liner further increased.

The vessel was 883 feet long (three football fields), 92.5 feet wide, and 104 feet from keel to bridge. She had eight steel decks and a circular double bottom 5.25 feet through (the inner and outer "skins"). The ship was divided into 16 compartments by 15 transverse "water-tight" bulkheads, well above the water line. Communication from the engine rooms and boiler rooms was through water-tight doors that could be closed instantly from the captain's bridge. The crew numbered nearly 900, with 320 engineers and 65 navigators. The machinery and equipment of the *Titanic* were the finest attainable and represented the last word in marine construction. Her structure was of steel, of a weight, size, and thickness greater than that of any other ship. The cruising speed was 21 knots (24 miles per hour) with a maximum of 24 knots (28 miles per hour).

The *Titanic* was equipped with three engines—two reciprocating four-cylinder, triple-expansion steam engines and one centrally placed Parson's turbine—each driving a propeller. The two reciprocating engines had a combined output of 30,000 horsepower and the turbine, 16,000 horsepower. The two reciprocating engines were each 63 feet long and weighed 720 tons. They were powered by steam produced in 29 boilers and 159 furnaces. The boilers were nearly 16 feet in diameter and 20 feet long, and each weighed 91.5 tons and held 48.5 tons of water. They were heated by coal, 7703 tons of which could be carried on board. The furnaces required over 6 tons of coal a day to be shoveled into them by hand, requiring the services of 176 firemen working around the clock. One hundred tons of ash a day had to be disposed of by ejecting it into the sea. The work was relentless, dirty, and dangerous, and the firemen had a high suicide rate. *Titanic's* rudder was nearly 79 feet tall and 15 feet long, and it weighed >100 tons. It required steering engines to move it. The ship had its own waterworks capable of heating and pumping water to all parts of the vessel via a complex network of pipes and valves. The main water supply was taken aboard while *Titanic* was in port, but in an emergency she could also distill fresh water from the sea.

Titanic was equipped with two 1.5 kW spark-gap wireless telegraphs located in the radio room on the Bridge Deck. One set was used for transmitting messages, and the other, located in a soundproof booth, for receiving them. The system, one of the most powerful in the world, had a range of 1000 miles.

The passenger facilities met the highest standards of luxury. The ship could accommodate 739 first-class passengers, 674 second-class, and 1026 third-class, plus 900 crew members. In all, she could carry 3339 people. Passengers could use an onboard telephone system, a lending library, and a large barbershop. The first-class section had a swimming pool, a gymnasium, a squash court, a Turkish bath, an electric bath, and a veranda café.

Although the *Titanic* was primarily a passenger ship, she also carried a substantial amount of cargo. Under contract with

both Royal Mail and the US Postal Department, she had 26,800 cubic feet of space in her hull allocated for storage of letters, parcels, and specie (bullion, coins, and other valuables). The ship's passengers brought with them a huge amount of luggage; another 19,500 cubic feet was taken up by first- and second-class baggage. In addition, there was considerable cargo: furniture, food, and motor cars. *Titanic* was equipped with eight electric cranes, four electric winches, and three steam winches to lift cargo and baggage in and out of the hull. It was estimated that the ship used 415 tons of coal in South Hampton, simply generating steam to operate the cargo winches, heat, and light.

Titanic carried 20 lifeboats: 14 standard wooden lifeboats with a capacity of 65 people each and four collapsible lifeboats with a capacity of 47 people each. All lifeboats were stored securely on the Boat Deck connected to davits by ropes. Additionally, two emergency cutters with a capacity of 40 people each were available. Each boat carried food, water, blankets, and a spare lifebelt. *Titanic* had the ability to carry up to 64 wooden lifeboats, which would have been enough for 4000 people. The White Star Line, however, decided that only 16 wooden lifeboats and four collapsible lifeboats would be carried, which could accommodate 1178 people, only one third of *Titanic's* total capacity. The Board of Trade's regulations at the time required British vessels >10,000 tons to carry only 16 lifeboats with a capacity of 990 occupants, so *Titanic* actually provided more lifeboat accommodation than was legally required.

For the maiden voyage, 885 crew members were recruited. She did not have permanent crew and, like most vessels at the time, employed mostly casual workers who came aboard the ship only a few hours before she sailed from South Hampton. *Titanic's* passengers numbered 1317: first class, 324; second class, 284; and third class, 709. The ship was considerably under capacity on her maiden voyage, as she could accommodate 2439 passengers. Some of the most prominent people of the day booked a passage aboard the *Titanic*. The exact number of people aboard is not known, as not all of those who had booked tickets made it to the ship; about 50 cancelled for various reasons, and not all of those who boarded stayed aboard for the entire journey.

On her third day out, Saturday, April 13, *Titanic* crossed a cold weather front with strong winds and waves up to 8 feet. These died down as the day progressed but by the evening of Sunday, April 14, it became clear, calm, and very cold. *Titanic* received warnings from other ships of drifting ice in the area of the Grand Banks of Newfoundland; nonetheless, the ship continued to steam at full speed, standard practice at the time. It was generally believed that ice posed little danger to large vessels. At 11:40 PM, one of the lookouts spotted an iceberg immediately ahead of *Titanic* and alerted the bridge. The first officer ordered the ship to be steered around the obstacle and the engines to be put in reverse, but it was too late. The starboard side of *Titanic* struck the iceberg, creating a series of holes below the waterline. Five of the ship's watertight compartments were breached. The ship was doomed as she could not survive >4 of its 16 compartments being flooded.

Titanic began sinking bow first with water spilling from compartment to compartment as her angle in the water

became steeper. Those aboard *Titanic* were ill-prepared for such an emergency. The crew had not been trained adequately in carrying out an evacuation. The officers did not know how many they could safely put aboard the lifeboats and launched many of them barely half full. Most third-class passengers were trapped below decks as the ship filled with water. A “women and children first” protocol was generally followed for loading the boats, and most of the male passengers and crew were left aboard. Two hours and 40 minutes after *Titanic* struck the iceberg, her forward deck dipped under water and the sea poured in through open hatches and grates. As her unsupported stern rose out of the water, exposing the propellers, the ship split apart. The stern remained afloat for a few minutes longer. At 2:20 AM it sank, breaking loose from the bow section. The remaining passengers and crew were plunged into lethally cold water with a temperature of 28°F (−2°C). Almost all of those in the water died of hypothermia or cardiac arrest within minutes or drowned. Only 13 were helped into lifeboats, though these had room for almost 500 more occupants.

Earlier, distress signals had been sent by wireless devices, rockets, and lamps, but no ships responded or were near enough to reach her before she sank, except the *Californian*, which saw her flares but failed to assist. At about 4:00 AM, RMS *Carpathian* arrived on the scene in response to *Titanic*’s earlier distress calls. Only 710 people were found alive and conveyed by *Carpathian* to New York; about 1500 people lost their lives.

How could such a magnificent ship built like a battleship be sunk by an iceberg which was not seen until the ship was virtually on top of it? One hundred years ago across the Atlantic, it was entirely the responsibility of the lookouts to spot an iceberg, and they could do so 9 miles ahead, providing at least 30 minutes for the ship to maneuver its course. The *Titanic* lookouts spotted the iceberg only 37 seconds before the starboard side of the ship hit it, opening up a 100-yard gash. At the time of the collision, it was a most unusual night—quite still, with innumerable stars in the sky. Although cold, it was thought to be a perfect night for spotting icebergs, although the danger of icebergs was recognized to be greater at night than during the day. The ship was going 22 knots per hour (25 miles per hour) because it wanted to make New York within 7 days as planned. If the speed had been reduced to 12 knots per hour, the disembarking in New York would have been delayed 2 days. When the ship collided with the iceberg, most passengers were in their rooms and few heard any disturbance or shock from the collision. Some had suggested that if the ship had hit the iceberg head on, the *Titanic* would have survived.

Nearly 100 years later, Tim Milton, a *Titanic* investigator for decades, asked the simple question: Why did the lookouts not see the iceberg until <1 minute before the collision and why did the *Californian* not come to the rescue when it was only 10 or so miles away? The answer apparently has to do with the night being a *mirage*, an optical phenomenon that creates the illusion of water, often with inverted reflections of distant objects. The mirage results from distortion of light by alternate layers of hot and cool air. As mentioned, on the night of the

collision, the sky was clear but covered with stars. One passenger commented later that she had never seen so many stars in the sky. The lookouts, in other words, were unable to see the difference between an iceberg and a star in front of them since the stars came down essentially to water level. Likewise, the captain of the *Californian* was unable to see the huge *Titanic* because of confusion with the innumerable stars in the sky. The warm air suddenly mixing with the cold air also apparently played a prominent role.

The sinking of the *Titanic* led to many changes in maritime rules: to have adequate lifeboats for every passenger and crew member on every ship, to perform lifeboat drills on every passenger ship, to man wireless equipment on every passenger ship around the clock, and to set up an ice patrol to monitor the presence of icebergs in the North Atlantic.

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