

**Record: 1**

**Title:** Busting Big Myths in Popular Psychology.

**Authors:** Lilienfeld, Scott O.<sup>1</sup>  
Lynn, Steven Jay<sup>2</sup>  
Ruscio, John<sup>3</sup>  
Beyerstein, Barry L.<sup>4</sup>

**Source:** Scientific American Mind; Mar/Apr2010, Vol. 21 Issue 1, p42-49, 8p, 9 Color Photographs

**Document Type:** Article

**Author Affiliations:** <sup>1</sup>Professor of psychology at Emory University  
<sup>2</sup>Professor of psychology at Binghamton University  
<sup>3</sup>Associate professor of psychology at the College of new Jersey  
<sup>4</sup>Professor of psychology at Simon Fraser University

**Full Text Word Count:** 3746

**ISSN:** 15552284

**Accession Number:** 48193764

**Database:** EBSCO MegaFILE

**Busting Big Myths in Popular Psychology****Pop psych lore is a bewildering mix of fact and fallacy. Here we shattersome widely held misconceptions about the mind and human behavior**

Popular psychology has become a fixture in our society, and its aphorisms, truths and half-truths permeate our everyday existence. A casual stroll through our neighborhood bookstore reveals dozens of self-help, relationship, recovery and addiction books that serve up heaping portions of advice for steering us along life's rocky road. About 3,500 self-help books are published every year, and numerous new Internet sites on mental health sprout up every month.

Much of this information is accurate and useful. Yet scores of popular psychology books and articles are rife with what we term "psychomythology," the collective body of misinformation about human nature. Without a trustworthy field guide for sorting psychologic a l fact from fiction, the public may find it self at the mercy of self-help gurus, television talk-show hosts and self-proclaimed mental health experts , many of whom dispense dubious psychological information and guidance.

In our new book, *50 Great Myths of Popular Psychology*:

**Shattering Widespread Misconceptions about Human Nature** (Wiley-Blackwell, 2010), we bust 50 widespread myths of popular psychology, along with about 250 "mini myths ," explore the ramifications of these fallacies in popular culture and everyday life, and trace their psychological and sociological origins.

For example, we demonstrate that the following widely held beliefs are largely or entirely false:

- Most people use only 10 percent of their brainpower.
- In romantic relationships, opposites tend to attract.
- Our memories are faithful recordings of events similar to those on a videotape or DVD.
- People with schizophrenia have multiple personalities.
- Only depressed people commit suicide.
- People tend to behave oddly during a full moon.
- All successful psychotherapy forces people to confront the "root causes" of their problems from childhood.

These notions have various origins. Some, such as the idea that we use only 10 percent of our brainpower, seem to arise in part from misinterpretations of psychological research that are trumpeted

in pop psych books, articles and blogs — in this case, from a warped interpretation of decades-old and now discredited claims that scientists did not know what 90 percent of the brain did. Other mistaken beliefs probably result from selective attention and memory. For instance, all of us tend to notice and recall unusual occurrences. Thus, we are more likely to remember an attraction between two people who have markedly different personalities than a bond between two people who are alike. Similarly, we notice and recall peculiar behavior during a full moon more readily than we do ordinary actions.

Still other myths probably derive from the powerful allure of our everyday experience. For instance, our memories seem subjectively real to us, often leading us to accept their veracity without question. In fact, hundreds of studies show that our memories are subject to distortions over time [see also "Do the 'Eyes' Have It?" by Hal Arkowitz and Scott O. Lilienfeld; *Scientific American Mind*, January/February 2010].

In this article, we debunk six popular psychology myths. We deflate some of the widely expressed enthusiasm for expressing anger, different learning styles and a positive attitude as a treatment for cancer. We also discredit the belief that all alcoholics must aim for abstinence, that old age is usually characterized by sadness and mental deterioration, and that we all deal with death in an unvarying sequence of five stages.

#### **Myth #1: Blowing Our Tops Defuses Anger**

People often opine that releasing anger is healthier than bottling it up. In one survey, 66 percent of university undergraduates agreed that expressing pent-up anger is a good way of tamping down aggression. This belief dates back at least to Aristotle, who observed that viewing tragic plays affords the opportunity for catharsis, a cleansing of anger and other negative emotions.

Popular media also assure us that anger is a monster we must tame by "letting off steam," "blowing our top" and "getting things off our chest." In the 2003 movie *Anger Management*, the meek hero (played by Adam Sandler) is falsely accused of "air rage" on a flight, causing a judge to order him to attend an anger management group run by psychiatrist Buddy Rydell (played by Jack Nicholson). At Rydell's suggestion, Sandler's character tosses dodgeballs at schoolchildren and throws golf clubs to purge his anger.

Rydell's advice echoes the counsel of many self-help authors. One suggested that rather than "holding in poisonous anger," it is better to "punch a pillow or a punching bag. And while you do it, yell and curse and moan and holler." Some popular therapies encourage clients to scream, hit pillows or throw balls against walls when they get angry. Practitioners of Arthur Janov's "primal therapy," popularly called primal scream therapy, believe that psychologically disturbed adults must bellow at the top of their lungs or somehow otherwise release the emotional pain stemming either from the trauma of birth or from childhood neglect or suffering.

Yet more than 40 years of research reveals that expressing anger actually amplifies aggression. In one study, people who pounded nails after someone insulted them became more critical of that person than did their counterparts who did not pound nails. Other research shows that playing aggressive sports, such as football, actually boosts self-reported hostility. And a review of 35 studies by psychologist Craig Anderson of Iowa State University and psychologist Brad Bushman of the University of Michigan at Ann Arbor suggests that playing violent video games such as *Manhunt*, in which participants rate assassinations on a five-point scale, heightens aggression in the laboratory and in everyday social situations.

Psychologist Jill Littrell of Georgia State University concludes from a published review of the literature that expressing anger is helpful only when accompanied by constructive problem solving or communication designed to reduce frustration or address the immediate source of the anger. So if we are up-set with our partner for repeatedly ignoring our feelings, shouting at him or her is unlikely to make us feel better, let alone improve the situation. But calmly and assertively expressing our resentment ("I realize you probably aren't being insensitive on purpose, but when you act that way, I don't feel close to you") can often take the sting out of anger.

Why is this myth so popular? People probably attribute the fact that they feel better after expressing anger to catharsis, rather than to the anger subsiding on its own, which it almost always does. Odds are, they would have felt better if they had merely waited out their anger.

### **Myth #2: Different Strokes for Different Pupils**

In the story "Parents of Nasal Learners Demand Odor-Based Curriculum," writers at the satirical newspaper The Onion poked fun at the idea that a teaching style exists to unlock every underperforming student's latent potential. An expert quoted in the story observed that "nasal learners often have difficulty concentrating and dislike doing homework.... If your child fits this description, I would strongly urge you to get him or her tested for a possible nasal orientation."

Plug the words "learning styles" into an Internet search engine, and you'll find scores of Web sites purporting to diagnose your preferred learning style in a matter of minutes. These sites are premised on a widely accepted claim: students learn best when teaching styles are matched to their learning styles. The popularity of this view is understandable. Rather than implying that some students are better or worse learners overall, it suggests that all students can learn well, perhaps equally well, given just the right teaching style.

This idea has become a truism in much of recent educational theory and practice. It has been extolled in many popular books and in workshops that attract hundreds of teachers and principals. In some schools, teachers have even started giving children T-shirts emblazoned with one of the letters V, A and K, which stand for three widely accepted learning styles: visual, auditory and kinesthetic.

Yet studies show that students' learning styles are difficult to reliably identify, largely because they often differ greatly across situations. A child might display one style in art class, say, and a different one when trying to learn math.

Moreover, from the 1970s onward, most investigations have failed to show that matching teaching styles to learning styles works: for example, it does not improve students' grades in most cases. Instead certain general teaching approaches — such as setting high expectations for students and providing them with the motivation and skills to attain them — usually yield better results than other strategies, regardless of students' learning styles.

To the extent that the "matching" approach encourages educators to teach to students' intellectual strengths rather than their weaknesses, it may actually backfire. In the long run, students need to learn to compensate for their shortcomings, not avoid them. [For more on better learning techniques, see the Special Report beginning on page 32.]

### **Myth #3: Positive Thinking Cures Cancer**

In the book *9 Steps for Reversing or Preventing Cancer and Other Diseases* (Career Press, 2004), Shivani Goodman argues that her cancer was the product of negative thought patterns — in this case, her subconscious rejection of being a woman. Once she identified her toxic attitudes, Goodman claims, she changed them into healing approaches that created "radiant health." Numerous self-help books similarly imply that a positive attitude can stop cancer in its tracks or at least slow its progression.

Most women who have survived cancer seem to agree. According to surveys, 40 to 65 percent of survivors believe their cancers were caused by stress, and between 60 and 94 percent think they became cancer-free because of their positive attitude.

The weight of the evidence, however, fails to support the notion that optimism is a salve for cancer. Most studies find no connection between cancer risk and either stress or emotions. In fact, in several investigations, researchers observed a lower risk of breast cancer among women who experienced relatively high stress in their jobs, compared with women who experienced relatively low job stress. Scientists have also consistently failed to turn up an association between positive attitude and cancer survival.

For such reasons, journalist and a Ehrenreich adopts a decidedly skeptical stance on the power of mind-set over healing in her book *Bright-Sided: How the Relentless Promotion of Positive Thinking Has Undermined America* (Metropolitan Books, 2009). Further, Ehrenreich rails against the "cancer culture" that pressures people with cancer to believe that being upbeat and cheerful will heal them or at least ennoble them as human beings. Instead Ehrenreich urges people with breast cancer to adopt an attitude of "vigilant realism" and not to bury themselves under a cosmetic veil of cheer.

The impotence of a positive outlook in the face of physical ailments calls into question the medical value of support groups and the emotional assistance they provide. Early preliminary studies seemed

to suggest that participating in such groups helps to prolong life. But more recent and scientifically solid research, reviewed by University of Pennsylvania psychologist James Coyne and his colleagues, showed that psychological interventions (including support groups) do not extend the lives of cancer patients, although they can enhance their quality of life.

People with cancer can relieve their physical and emotional burdens by seeking quality medical and psychological care, connecting with friends and family, and finding meaning and purpose in every moment. They can also take comfort in the now well-established finding that their attitudes, emotions and stressful experiences are not to blame for their illness.

#### **Myth #4: One Drink, One Drunk**

Can ex-alcoholics eventually drink in moderation without succumbing to their old addiction? One survey of more than 3,000 people reveals that only 29 percent of Americans think they can. This perception dovetails with the Alcoholics Anonymous (AA) slogan, "One drink, one drunk." AA's familiar 12-step program encourages members to admit that they are powerless over alcohol. Treatment programs premised on the 12 steps boast recovery rates as high as 85 percent. But here's the rub: as many as two thirds of drinkers drop out within three months of joining AA, and AA helps only about a fifth of people abstain completely from alcohol.

Claims that some people with a history of alcoholism can safely engage in "controlled drinking" have generated a firestorm of controversy. Yet a 2001-2002 National Institute on Alcohol Abuse and Alcoholism survey of more than 40,000 adults revealed that 18 percent of one-time alcoholics could drink in moderation without abusing alcohol, challenging the popular assumption that abstinence is a necessary goal for all alcoholics. Further, researchers have found that behavioral self-control training programs, in which moderate drinking is the goal, are at least as effective as those that use the 12-step method. In these restraint-centered programs, therapists train people to monitor their drinking, set limits for their alcohol consumption, control their rate of drinking and reward their progress. These programs also teach coping skills that help participants "wait out" the urge to drink and to avoid situations that tempt them to drink.

Such tactics do not work for everyone. Studies suggest that if individuals are severely dependent on alcohol, have a long history of unhealthy drinking, and experience physical and psychological problems from drinking, they are probably best off seeking treatment programs that advocate abstinence. Nevertheless, controlled drinking is probably a feasible goal for some ex-alcoholics. Indeed, problem drinkers may seek help earlier if they know that complete abstinence from alcohol is not the only alternative. Indeed, controlled drinking may be especially worth considering for patients for whom abstinence-oriented programs have repeatedly failed to work.

#### **Myth #5: Older and Sadder**

Think of someone who is depressed, cantankerous, lonely, sexually inactive and forgetful. Did an elderly person come to mind? In one survey, 65 percent of psychology students agreed that "most older people are lonely and isolated," and in another survey, 64 percent of medical students agreed that "major depression is more prevalent among the elderly than among younger persons."

Exposure to dubious media depictions of the aged begins early in life. In a study of Disney children's films, investigators found that 42 percent of elderly characters are portrayed in a less than positive light and as forgetful or crotchety. Such unflattering renderings also pervade films aimed at adolescents. In a study of popular teen movies, most elderly characters exhibited some negative characteristics, and a fifth fulfilled only off-putting stereotypes.

Contradicting these representations, one research team surveyed adults between the ages of 21 and 40 or older than 60 about their own happiness as well as about their assessment of the happiness of the average person at their current age, aged 30 and aged 70. Young adults predicted that people would become less happy as they got older. Yet older adults were actually happier than younger respondents. Population-based surveys reveal that rates of depression are highest in those between the ages of 25 and 45 and that the happiest group overall is men aged 65 and older. Happiness increases through the late 60s and perhaps even 70s. In one study of 28,000 Americans, a third of 88-year-olds reported being "very happy," and the happiest individuals surveyed were the oldest. Indeed, the odds of being happy increased 5 percent with every decade. Interestingly, research by Stanford University psychologist Laura Carstensen demonstrates that compared with younger people, older people are more likely to recall positive than negative information, perhaps accounting partly for their often surprisingly rosy outlook on life.

Older people are not generally lacking in sexual desire either. In a national survey, more than three quarters of men aged 75 to 85 and half of their female counterparts reported interest in sex. Moreover, 73 percent of people between the ages of 57 and 64 were sexually active, as were 53 percent of those 64 to 74 years old. Among 75 — to 85 -year-olds , 26 percent said they were sexually active.

Finally, cognitive abilities do not fade dramatically with age. We do experience some memory loss as the years pass, especially minor forgetfulness and difficulty retrieving words while speaking. Our ability to manipulate numbers, objects and images may also decline some in our later years. But even at age 80, in the absence of serious illness affecting the brain, general intelligence and verbal abilities are not much worse than they were decades earlier. Furthermore, research on creative accomplishments indicates that in some disciplines, such as history or fiction writing, many people produce their best work in their 50s or even decades later. Thus, to tweak an old saying, "You can teach an old dog new tricks" and a lot more."

#### **Myth # 6: A Universal Course for Dealing with Death**

Legions of mental and medical health professionals who work with the elderly memorize this acronym: DAB-DA. It stands for the five stages of coping with death popularized by Swiss-born psychiatrist Elisabeth Kübler-Ross in the late 1960s: denial, anger, bargaining, depression and acceptance. These stages describe a sequence of transitions that all people supposedly pass through on finding out they are about to die. According to Kübler Ross, when we learn of our impending demise, we first tell ourselves it is not happening (denial), then become angry at the realization that it actually is (anger), next search in vain for a way to postpone the death, perhaps until we can accomplish a desired goal (bargaining), later become sad as the awareness that we are dying sets in (depression), and finally come to grips with our inevitable demise and accept it with equanimity (acceptance).

Many medical, nursing and social work students in North America and Britain learn about Kübler-Ross's stages as part of their professional training. These stages also pervade our culture and now extend beyond death in the popular mind-set to the psychological processing of grief from any significant disappointment. In the sitcom *Frasier*, the main character passes through all five stages of grief after losing his job as a radio talk-show psychologist. And in *The Simpsons*, Homer experiences the same sequence of emotions in a matter of seconds after a doctor informs him (erroneously) that he is dying.

Despite its popularity, Kübler-Ross's theory is surprisingly devoid of scientific support. Studies reveal that many dying patients skip one or more Kübler-Ross stages or even pass through the stages in reverse order. For example, some people initially accept their own deaths but enter denial later. Nor does research bear out the validity for these stages for grief. Not all people experience depression or marked distress after the loss of loved ones, including partners or family members to whom they were deeply attached, according to research by Columbia University psychologist George Bonanno and his colleagues. Moreover, in a 2007 study of 233 Connecticut residents who had recently lost a spouse, acceptance, not denial, was the predominant initial reaction following loss.

Kübler-Ross stages may be appealing because they offer a sense of predict-ability over an event that is out of our control . The idea that the frightening experience of death can be boiled down to a set series of defined stages that culminate in tranquility is reassuring. In truth, however, the process of dying does not follow the same path for all of us, no more than does the process of living.

We can all be fooled by psychomythology, because so many of its false-hoods dovetail with our intuitions, hunches and experiences. Thus, scrutinizing popular psychology claims can provide a new window onto our mental worlds and enable us to make better life decisions. As paleontologist and science writer Stephen Jay Gould reminded us, debunking a myth necessarily unveils an underlying truth, thereby allowing us to attune our expectations more squarely with reality. In this way, taking on psychomythology, example by example, can transform us into better informed and educated citizens.

**Parts of this article are adapted from 50 Great Myths of Popular Psychology: Shattering Wide-spread Misconceptions about Human Behavior, by Scott O. Lilienfeld, Steven Jay Lynn, John Ruscio and Barry L. Beyerstein. Copyright Wiley-Blackwell, 2010.**

Some see anger as a monster we must tame by "letting off steam." Yet expressing anger actually

amplifies aggression.

Students' learning styles are difficult to reliably identify, largely because they differ greatly across situations.

Between 60 and 94 percent of cancer survivors think they became cancer-free because of their positive attitude.

A survey of 40,000 adults showed that 18 percent of onetime alcoholics could drink without abusing alcohol.

Happiness increases through at least the late 60s. In one study, a third of 88-year-olds reported being "very happy."

The process of dying does not follow the same path for all of us, any more than does the process of living.

## FAST FACTS

### Conventional Wisdom?

1. >> Scores of popular psychology books and articles are rife with what we term "psychomythology," the collected body of misinformation about human nature.
2. >> The authors' new book busts 50 widespread psychology myths, along with about 250 "mini myths," including "Most people use only 10 percent of their brainpower" and "People tend to behave oddly during a full moon." cent of their brainpower" and "People tend to behave oddly during a full moon."
3. >> In this article, the authors debunk six fallacies. They deflate enthusiasm for expressing anger, different learning styles and a positive attitude as a salve for cancer. They also discredit the belief that all alcoholics must aim for abstinence, that older people are unhappy and that grief emerges in five set stages.

### (Further Reading)

- **Mind Myths: Exploring Popular Assumptions about the Mind and Brain.** Edited by Sergio Della Salla. Wiley, 1999.
- **Psychomythics: Sources of Artifacts and Misconceptions in Scientific Psychology.** William R. Uttal. Lawrence Erlbaum, 2003.
- **The Effect of Refuting Misconceptions in the Introductory Psychology Class.** Patricia Kowalski and Annette J. Taylor in *Teaching of Psychology*, Vol. 36, pages 153-159; July 2009.

PHOTO (COLOR)

~~~~~

By Scott O. Lilienfeld; Steven Jay Lynn; John Ruscio and Barry L. Beyerstein

SCOTT O. LILIENFELD is professor of psychology at Emory University. He studies personality disorders, psychiatric diagnosis, evidence-based psychological practice, and questionable psychotherapeutic and diagnostic techniques.

STEVEN JAY LYNN is professor of psychology at Binghamton University, where he conducts research on hypnosis, memory, fantasy and psychotherapy.

JOHN RUSCIO is associate professor of psychology at the College of new Jersey, where he investigates statistical methods and the distinction between psychological science and pseudoscience.

BARRY L. BEYERSTEIN passed away in 2007; as professor of psychology at Simon Fraser University, he studied myths about the brain and the use of critical thinking for evaluating psychological claims.

---

Copyright of Scientific American Mind is the property of Scientific American and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.