



Henry A. Nasrallah, MD Editor-in-Chief, CURRENT PSYCHIATRY henry.nasrallah@currentpsychiatry.com

## Irrational beliefs A ubiquitous human trait

he human brain's ability to think is a dramatic evolutionary leap above all other living creatures. But this cognitive power has a down side: our brains appear to be wired to generate and harbor false beliefs. Severe cases are pejoratively labeled "delusions" and usually lead to psychiatric care. But what about less-severe false and irrational beliefs that are common in the "normal" population?

Consider superstitions. How many of your friends expect the worst after seeing a black cat cross their path, adamantly avoid a hotel room on the 13th floor, knock on wood to ward off

evil, or are convinced that breaking a mirror brings bad luck?

**Let's keep going.** How many of your coworkers believe astrology determines their destiny or that clairvoyance and reincarnation are real? I'll bet you know dozens of ordinary, "healthy" people who tenaciously believe in ghosts, the devil, and angels.

You certainly have met people who are convinced objects can be levitated through mental forces. What about the many who believe dreams provide information about the future or that fortune-tellers can predict the future by palm-reading, tarot cards, or gazing into a crystal ball?

**Take athletes.** Many have odd beliefs that shape their behavior before, during, and after games to help them win. They may wear a lucky item of clothing at every game, wear their socks inside out,

## Ordinary, healthy people tenaciously believe in ghosts, the devil, and angels

bounce the ball a specific number of times before a free throw, or slap the goalie's pad for good luck. Some believe they will play better if they force themselves to eat a certain number of candy bars or vomit before each game or tuck their shirts in on the right side but not on the left.

How about college students who insist on using a specific "lucky pen" during an exam or believe that singing a certain song before a test will help get them a good grade? Ask gamblers what they believe



can make them win at poker, craps, roulette, or slot machines, and you will hear a flurry of bizarre beliefs. And denying the potential for harm or death is a common false belief among persons who engage in high-risk and dangerous sports or behaviors.

**Suspicious theories** or religious beliefs proliferate when humans feel helpless. We accept "conspiracy theories" whenever a major event (such as landing on the moon) or a calamity (assassination of a

## Does generating false beliefs have a useful or adaptive evolutionary value?

President, terrorist attack, or massive flooding after a hurricane) occurs. Many people believe in UFOs or that aliens abduct innocent people, molest them aboard a space ship, then return them to Earth to tell others about their traumatic memories.

**Finally,** various nonpsychotic disorders are associated with illogical, irrational, or false beliefs:

- Individuals with anxiety disorders may firmly believe that a plane will crash if they board it or that a bridge will collapse if they drive over it.
- Successful people who become clinically depressed often express the (false) belief that they are stupid, failures, worthless, or bankrupt.
- Pretty women with body dysmorphic disorder are convinced they are ugly.
- Anorexic adults who have shriveled to 75 pounds firmly believe they are fat.

• A person with obsessive-compulsive disorder is convinced that something terrible will happen if he does not flush the toilet 9 times every time he uses it.

What does it all mean? Overwhelming evidence shows that odd, irrational, false, or bizarre beliefs are ubiquitous among people regarded as ordinary and sane.

Does generating false beliefs have a useful or adaptive evolutionary value? Could the magical belief in miracles have evolved in the human brain to instill hope during dark hours or to help us confront the inevitability of death? Could this "mental software"—

designed to cope with inevitable existential tribulations—have mutated into unwarranted superstitious and supernatural beliefs in everyday life?

**Until** neuroscience research untangles the enigmas of human thoughts and beliefs, let us remember that patients with schizophrenia's implausible delusions, mania's grandiose delusions, or psychotic depression's somatic delusions are merely extreme variants on a continuum of irrational beliefs on which all of us "sane" individuals also belong.

A. Nanaffalu

Henry A. Nasrallah, MD Editor-in-Chief