LIFE

Inside FITNESS & WELL-BEING

Suits him
All dressed up for a good cause
>FIT & FAB C11

Drink to that
There's a right and a wrong way to hydrate
>BIOLOGY C10

Root awakening
Why turmeric is the golden tonic
>NUTRITION C11

CONTACT US: life@scmp.com

MONK-Y BUSINESS

Two Thai scientists are busy debunking myths and claims of miracles in a bid to stop the gullible being ripped off by unscrupulous 'holy men', writes Tibor Krausz

The saffron-robed monk sits calmly, unharmed in a large vat of boiling oil – or so it seems – over a blazing wood fire.

As Buddhist chants emanate from loudspeakers, an assistant fans the flames while another hands various objects to the monk, who reaches out to tap them with his cane. At the monk's touch, spectators believe, the objects turn into potent talismans, which would be worth a fortune for those lucky enough to possess them.

To pious Thai Buddhists, the spectacle of a monk withstanding the scorching heat of boiling oil is a miracle. News of it soon spreads far and wide, and the monastery, in the northeastern province of Nong Bua Lamphu, receives plenty of donations from the faithful – mostly poor rural folk who seek to improve their lot in life through donating to the "magical" monks. The temple's small bottles of "sacred oil" sell like hot cakes for their presumed magical potency.

However, according to Jessada Denduangboripant, this "miracle" is yet another instance of unscrupulous monks preying on gullible Thais, whose capacity for believing in an endless variety of superstitions seems boundless. It wasn't real magic; it was a trick, Jessada, a biology lecturer at Bangkok's Chulalongkorn University realised.

So he set out to prove it. The monk's pot, he noticed from watching a video of the event, was oddly shaped, with a large, flat rim attached to a round bowl, resembling an upturned flying saucer. The vat, Jessada surmised, had been made with an inner layer for insulation against the heat.

In his lab, Jessada half-filled a jar with water, poured palm oil in it, and placed the jar on a hot plate. He waited a while and found he could still dip a finger safely into the oil on top, as the water absorbed the heat. The oil only seemed to be boiling because of air bubbles from the water rising to the top.

"Many monks have been using this kind of trick for years," Jessada says. "They blacken the name of Buddhism by continuing to deceive people for fame and fortune."

The lecturer posted his findings on social media, amassing a large following, and demonstrated them on a popular television programme. Jessada had debunked yet another scam perpetrated by dishonest "holy men" on a unsuspecting public. "Thai society is mired in a culture of superstitions," he says. "I am trying to change that."

The biologist is one of Thailand's best-known science popularisers who runs a YouTube channel called Wittaya Tasawang ("Open Your Eyes with Science"). Jessada has been on a public mission for years to debunk alleged cases of miracle-working and supernatural phenomena, and he hasn't flinched from demystifying some of the nation's most enduring and widely cherished myths.

Every autumn during the Bangfai Phayanaak ("Naga fireball") festival in northeastern Nong Khai province, mysterious fireballs appear over the Mekong River. Locals insist they're the work of the Naga, an otherworldly serpent that lurks in the river's murky waters. Jessada says the fireballs are neither mysterious, nor are they fireballs: they are red flares fired into the night sky from across the river in Laos, for the benefit of Thais picnicking in expectation of a "miracle", which often materialises on cue.

How does he know? He asked a friend to film a fireball sighting and send the footage to him. In the clip, posted on his YouTube channel, even the popping sounds of flares being fired from a gun can be heard just as several rising red dots appear in the sky. "Thai people are very gullible and I feel it's my duty to help foster scientific and critical thinking," Jessada says. "Younger people tend to be quite receptive."

He regularly tours the countryside to give well-attended lectures at secondary schools and colleges to wean Thais off the habit of reflexively attributing supernatural causes to any phenomena they don't understand. "If I don't speak up, people will continue to believe that [seemingly mysterious phenomena] can't be explained scientifically," he says.

The scientist recently debunked a myth on his own campus. Part of the pavement at Chulalongkorn University – one of the country's top-ranked educational institutions – was found to be marked with coiling, zigzagging patterns. The marks were found beside a pair of decorative plaster nagas that adorn balustrades at the faculty of arts building.

Several students and lecturers concluded that one of the sculptures had come alive in the night and slithered around in the moonlight. Students began praying to the statues for good grades, while members of the public arrived in droves to light joss sticks for the plaster serpents.

> **If I don't speak up, people will continue to believe that [seemingly mysterious phenomena] can't be explained scientifically**
>
> JESSADA DENDUANGBORIPANT (BELOW), BIOLOGY LECTURER AT BANGKOK'S CHULALONGKORN UNIVERSITY

Jessada investigated and discovered that the marks had been left by a high-pressure hose used by cleaners. "This happened right outside my office. Even some of my colleagues thought it had been the naga," he says with a chuckle. "Can you believe it?"

Although Thailand has come a long way economically in past decades, magical thinking continues to permeate all levels of Thai society. It manifests in a host of superstitions, from magic tattoos to incanted spells. Even those in charge of the country subscribe to them. During a recent press conference Prime Minister Prayuth Chan-ocha, the mercurial general who seized power in a coup two years ago, unbuttoned his shirt to show off the cascade of magical amulets he wears around his neck to enhance his powers and protect him from misfortune.

Such charms did little to protect his predecessor Yingluck Shinawatra, however, who was deposed in Prayuth's coup and faces criminal charges linked to a rice subsidy scheme.

In seeking to spread the virtues of rationalism in the kingdom, Jessada has his work cut out for him. He isn't the only Thai scientist doing it, though.

Weerachai Phutdhawong, an associate professor of organic chemistry at Kasetsart University, is another popular, media-savvy debunker. A soft-spoken man with thick spectacles and a moptop, Weerachai may not look like a typical nonconformist, but he doesn't shy away from stepping on toes.

"I've been insulted and threatened for exposing charlatans," he says. "One monk was even trying to come after me."

That monk was Phra Ajarn Cha ("Venerable Teacher Cha"), who recently gained fame in the southern province of Nakhon Sri Thammarat for allegedly sweating red crystals. His superior spiritual virtues rivalled those of ancient Buddhist sages, it was claimed, and the monk's drops of blood miraculously solidified into crystals, exiting through his shaven pate. The "sacred relics" duly became much sought-after lucky charms among superstitious Thais.

Weerachai was sceptical. He acquired a few beads to test them in his lab. His verdict: the "magic crystals" were in fact made from synthetic polymer. They were simple plastic pellets. He went public with his finding, drawing Arjan Cha's ire. "Monks like him sell belief in themselves and use tricks as signs of their spiritual powers," Weerachai says.

By exposing the monk as a fraud, the chemist gained many new fans and a few enemies.

Entire pilgrimage industries can sprout up locally around the aura of holiness that "magic monks" acquire through their presumed miracles. "These monks practise a commercialised form of superstition in the guise of Buddhism," says Weerachai, a practising Buddhist who has twice been a monk for short spells. "They prey on people's ignorance and exploit their tendency to believe in miracles."

It isn't just monks who do so. Last year, a woman in Phatthalung province made national headlines for reporting that mysterious fires kept erupting spontaneously around her home, much to her family's dismay. Reporters flocked to the house. So did a group of mediums, dressed in imitation tiger pelts, who declared the culprit to be a poltergeist, the ghost of a mischievous child haunting the premises. Necromancers tried to exorcise the baleful spirit, but to no avail.

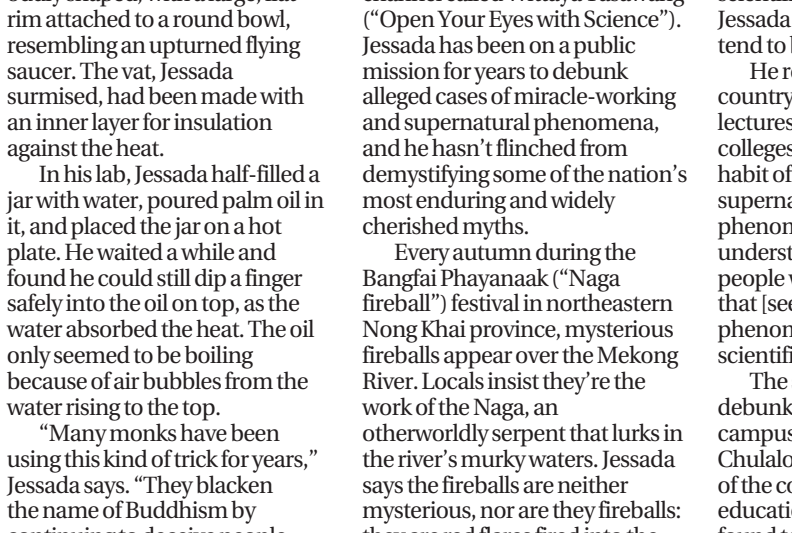
Weerachai stepped in, encouraging a TV crew to place hidden cameras around the house. One of them soon captured footage of the woman furtively setting fire to a piece of cloth before leaving in haste to alert her relatives. Case solved.

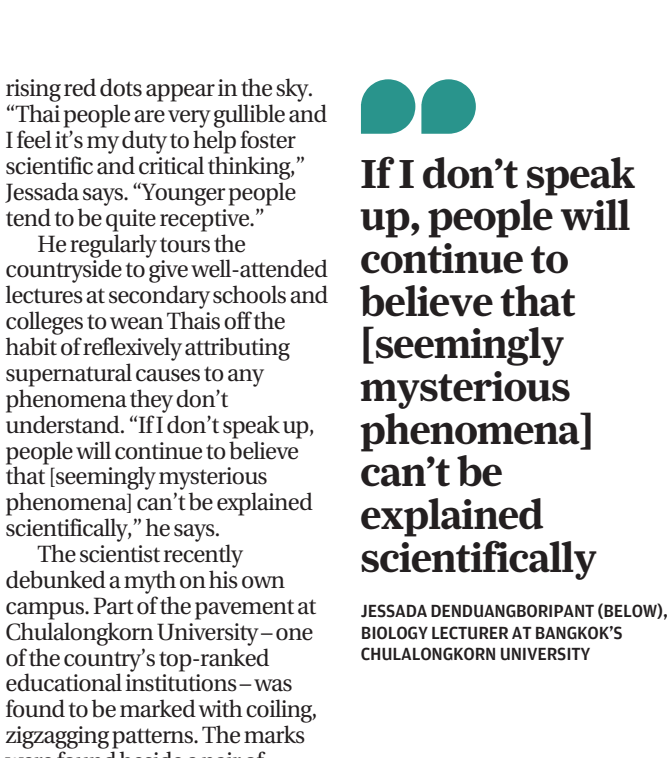
The woman, who had been soliciting donations from the public, wasn't too pleased about Weerachai's intervention. She threatened to sue the scientist for defamation.

"Thai people have to learn to think critically so they won't be taken in so easily," Weerachai says. Jessada concurs. "The answers [to puzzling phenomena] must come from science, not from rank superstitions," he says. "That's the only way we can become a truly modern nation."

life@scmp.com

A monk performs the notorious hot oil stunt in Nong Bua Lamphu province (top); an amulet market in Bangkok (above).





Ousted former Thai prime minister Yingluck Shinawatra visits a temple during her troubled time at the helm of the nation. Photos: AFP