Strange Visions

Superstitions, by their nature, establish causality where there is none. Yet their pervasiveness and the often uncanny similarity in how they're expressed across diverse cultures can also tell us something about humanity's basic fears and shared evolutionary development.

Perhaps no part of the body has been as invested with these beliefs as the human eye. These vulnerable organs are famously considered the windows to our souls, so it's no surprise they've been subject to such magical thinking. This slideshow offers an overview of some of the most widespread superstitions and myths surrounding the eye, from centuries past to some we still can't seem to shake.
Seeing "Evil" Everywhere

Few superstitions are as globally pervasive as that of "the evil eye." As with all folklore, the evil eye takes on unique elements depending on the culture in which it is expressed. However, the general belief at its core is that glances caused by jealousy, envy, or frustration can have calamitous results for their object of intention.[1]

This superstition probably originated from ancient Greek and Roman physiologic concepts that the eye made vision possible by directing light and energy outward onto objects, rather than receiving and processing it within.[1] Thus, the eye was considered to have considerable power, which could be harnessed for maliciousness. The widespread nature of the evil eye belief, which can be found in a majority of countries, led to theories that it is an intrinsic, universal fear that developed independently worldwide. In recent years, though, anthropological research has traced its likely origins to ancient Indo-European and Semitic cultures,[2] with its eventual spread by Alexander the Great and other military conquerors. It is now most commonly associated with Mediterranean cultures and their former colonial outposts in the West.
Cultural Impact

Another measure of the evil eye's influence on our world is the cultural artifacts that it has played a role in generating. Because brides are considered a natural target of envious glances, the veil was said to have been developed as a means of warding off unwanted spells. Matching bridesmaids' gowns, the throwing of rice, and carrying of the bride over the threshold have all been offered as tricks to misdirect this ocular evil.

Newborn boys were of particular value in ancient cultures, and therefore often the source of tremendous envy and ill will. To counteract the evil eye, protective amulets with blue beads were often placed around their bodies. This act linked the color blue to the male gender, an association whose frustratingly enduring nature will be evident to anyone who has ever set foot in a children's clothing store.

Even the modern "Rx" symbol found on prescriptions can probably be traced to the Egyptian "eye of Horus" symbol, which comes from a myth about protection against evil. As the symbol mutated over time, it was taken up by Roman physicians as the simple Rx we know today.\[1\]
Predictive Twitches

Less pervasive than the evil eye, but nearly as impressive in global reach, are the many superstitions surrounding twitching in the eye. Chinese, Indian, Hawaiian, Cameroonian, and Nigerian folklore all regard involuntary spasms of the eye to portend life-changing events, such as a death in the family, the arrival of money, and childbirth. More foreboding implications are usually attributed to twitches of the left eye rather than the right. In China, this superstition reaches its most elaborate expression, where the implications of each unintentional flutter are read differently depending on the hour of the day. If your eyelid twitches at 4 AM, it might mean joy is around the corner, whereas the same action at noon could spell imminent disaster.

In modern medicine, involuntary episodes of eyelid spasm, eye closure, and enhanced spontaneous blinking are categorized under the term "blepharospasm."[^3] Extreme forms of blepharospasm, though rare, can indicate cerebral or psychological morbidity.[^3] However, the more commonly encountered twitches and spasms indicate somewhat less foreboding diagnoses, such as a lack of sleep, stress, or too much alcohol or caffeine.[^4]
Opals in the Eye of the Beholder

With their sometimes eerie resemblance to eyes, albeit ones more commonly seen in science fiction or fantasy films, opals hold a special place among precious stones and gems as an ocular omen. In the Middle Ages, Europeans trembled in fear and awe at their power. Some saw clear evidence of the evil eye incarnate, with one historian of superstition writing that "the brilliant tongue of flame that burns in the true opal was regarded as ocular evidence of demoniac occupancy."[5] The opal was also considered to grant its wearer invisibility, making it the go-to stone for robbers and highwaymen. Conversely, braver souls of the time embraced the opal for its ability to render them impervious to all diseases of the eye.[5]
The Bewitched Eye

The German physician Georg Bartisch (1537-1607) is credited with writing the first comprehensive textbook describing the care of ocular diseases for nonacademic readers, *Ophthalmodouleia*. In addition to amassing the nascent medical knowledge of the era, it is equally invaluable as an anthropological record of its superstitions. Bartisch, a self-described occultist, practiced during an age when eye disease was considered celestial punishment for lapses of virtue, imposed at the hands of witches. He claimed to have witnessed swelling of the victims' eyes leading to the discharge of such unexpected elements as coals, clothespins, and whole pears.

Bartisch separated witchcraft into hot and cold categories. Hot witchcraft involved temperature increases, leading to bursting of the eyes. Early intervention called for renunciation of sin, followed by washing the eye with nightshade-based concoctions. It has been speculated that the belladonna contained in nightshade may have had utility in treating uveitis, but less so in angle-closure glaucoma. For cold witchcraft, shivering and chills would lead to swelling of the upper eyelids, to be treated with topical salves, including the blood of a raven.

Perhaps most historically damning to Bartisch's ophthalmologic legacy was his possible role as the coiner of the phrase "four eyes" to describe wearers of eyeglasses, whose use he thought contributed to blindness.[6]
Discordant Colors

The appreciation for symmetry is hardwired in our brains, so it's not surprising that any deviations raise suspicion. As such, heterochromia, the condition in which a person's irises are different colors, has provoked quite a few superstitions. In certain Native American cultures, heterochromia is referred to as "ghost eyes," and is thought to give its possessor sight into both heaven and earth (although this is primarily attributed to dogs with the condition). Eastern European pagan cultures have considered heterochromia a sign that a newborn child's eye has been swapped out with a witch's.

The result of fluctuations in iris pigmentation, both complete heterochromia iridium (two separate eyes of a different color) and partial heterochromia iridis (a variety of colors within a single iris) are rarely observed in humans. In most cases, heterochromia is benign, though it can signal the presence of such conditions as Horner syndrome or Waardenburg syndrome. This site is intended for healthcare professionals.
Rest in Peace

When someone passes away with their eyes closed, it is generally remarked that they are at peace or rest. Conversely, open eyes among the deceased have been interpreted as capturing their apprehensiveness over the coming judgment for their earthly actions. Ancient burial practices attempted to correct for this by placing coins on the deceased's eyelids. Beyond its practical utility for keeping the eyelids closed until rigor mortis could take over, it was also connected to the Greek myth that the ferryman Charon required a fee to take souls across the river Styx into eternity.

In an attempt to move past such moralistic interpretations, a study investigated eyelid positions in consecutive hospice deaths, finding that 37% had partial or no eyelid closure.\textsuperscript{[10]} Given that eyelid closure depends on a functional central nervous system (CNS), it was believed that this group was more likely to have disease-related CNS impairment at the time of death. Although it drew from only 100 cases, the study is nonetheless important for attempting to bring scientific scrutiny to a pervasive superstition still commonly encountered by those involved in end-of-life care.
**The Whites of Their Eyes**

For some decades, amateur criminologists and political prognosticators have believed that *sanpaku* eyes can predict the fates of the famous and doomed. *Sanpaku* is roughly translated from the Japanese as "three whites," and describes the condition in which the sclera is observed on a third border above or below the iris, in addition to on its left and right.

The rise of this belief in the West is credited to George Ohsawa, the Japanese macrobiotics diet pioneer who in an August 1963 interview is said to have predicted President Kennedy's death a few months before his assassination.[11] The President's *sanpaku* eyes were for Ohsawa a sign of sickness and ill fate. Believers also commonly cite Charles Manson's iconic "upper *sanpaku*" stare, with the sclera visible above the iris, which they consider a sign of sociopathy.[11]

Such examples of selection bias abound among believers in the predictive nature of *sanpaku* eyes, who would be better off seeking the more Darwinian explanation of the "cooperative eye hypothesis." This theory holds that in comparison with other primates, humans evolved to have a prominent sclera in order to more easily follow each other's gaze.[12] In turn, this facilitated enhanced cooperation and social interactions. Coincidentally, it's the very same ability that makes it easy to express bemused cynicism when faced with unfounded beliefs.
The Carrot Conspiracy

For decades, vegetable-adverse children have been compelled to eat carrots with the understanding it would improve their eyesight, and even help them see in the dark. Carrots are undoubtedly a powerful source of beta-carotene, the antioxidant that converts into vitamin A. Studies show a clear link between decreased vitamin A consumption and an increase in night blindness,\textsuperscript{[13,14]} a trend apparent in times of economic crisis when dietary habits shift away from vitamin A-rich animal-source foods.\textsuperscript{[14,15]} What they do not seem to show is that vitamin A, and carrots in particular,\textsuperscript{[16]} will strengthen eyesight or slow its decline in healthy persons.\textsuperscript{[14]}

The origins of this claim have a surprising source: British propaganda from World War II.\textsuperscript{[17]} With the advent of radar, British fighter pilots were suddenly able to down the German planes bombing England under the cover of darkness. Understandably reluctant to explain the source of their newfound abilities, they instead cited their pilots' vast consumption of carrots. Whether the Germans bought this is unclear, but British families certainly did. The myth has proved a lasting one. For young objectors who steadfastly refuse to eat carrots, the war on the domestic front continues to this day.

Image courtesy of US National Archives
References