

**Cyberchondria**

Cyberspace has spawned a new breed of hypochondriacs called "cyberchondriacs".

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Optical illusion explained

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The painting *Enigma*, created by the artist Isia Leviant, has for almost three decades been at the centre of a 200 year-old debate concerning the role of the eye versus the brain in producing the perception of illusory motion.

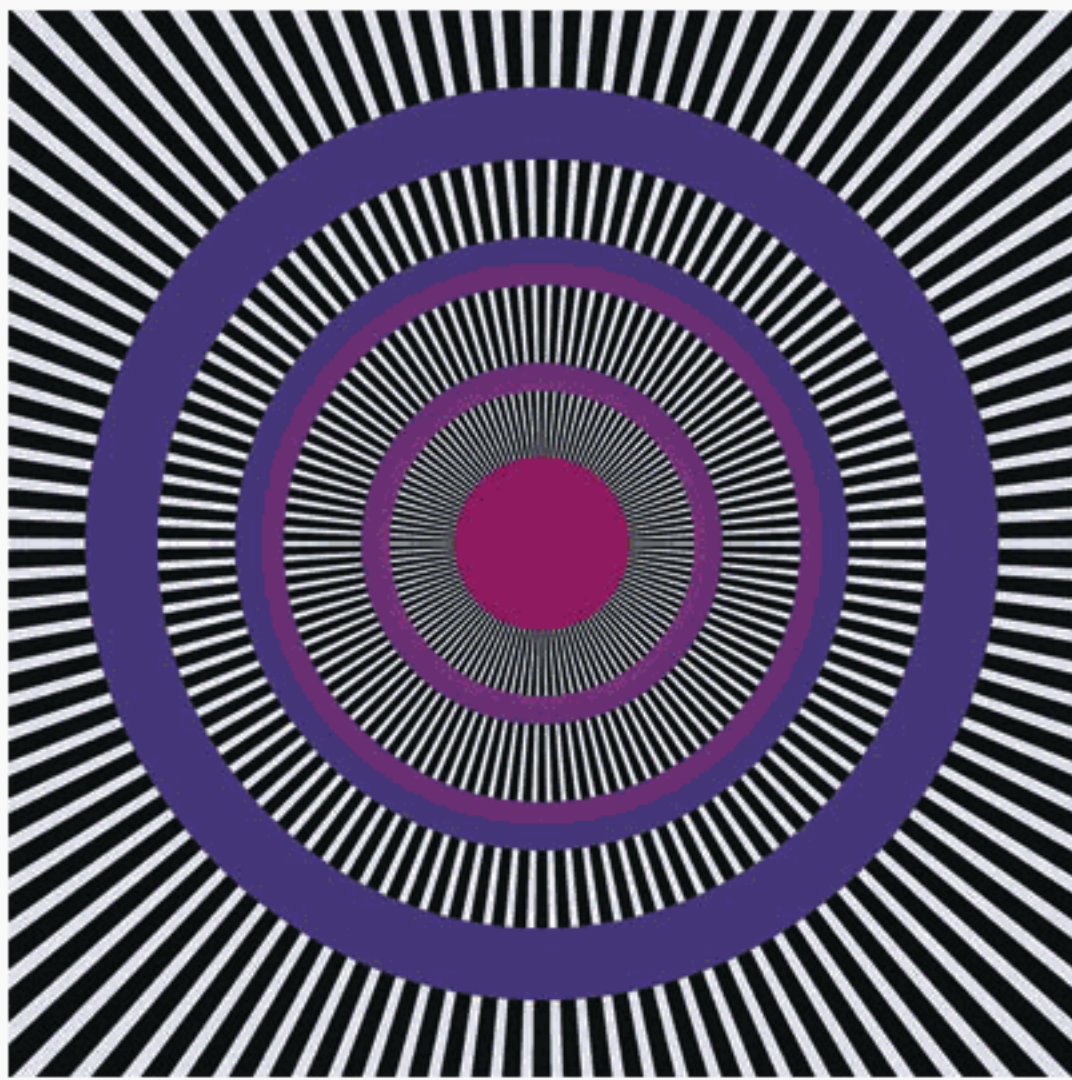
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Enigma is a striking visual illusion in which rotational motion is seen within a stationary image.

Now, researchers have shown that tiny motions of the eye are behind our perception of the illusion.

The researchers had previously shown that microsaccades - a microscopic and unconscious eye movement that happens spontaneously when we fixate our eyes - are critical to normal vision, and their role in the perception of illusory motion seemed likely.



The participants in the study indicated when the illusory motion sped up or slowed down during the observation of *Enigma*, while their eye movements were simultaneously recorded with high precision.

Microsaccade rates increased right before the illusory motion sped up, and microsaccade rates decreased right before the illusory motion slowed down or stopped. The results reveal a direct link between the eye motions and the perception of illusory motion, and rule out the hypothesis that the *Enigma* illusion originates solely in the brain.

These findings may help understand the neural mechanism underlying motion perception, both in the normal brain, and in patients with brain lesions that affect the perception of motion.

Moreover, they could help design future neural prosthetics for patients with brain damage.

Finally, the study provides a possible explanation for an entire family of visual illusions central to the fields of visual art and visual science. "It would be unexpected if *Enigma* turned out to be the only illusion affected by eye movements", lead author Susana Martinez-Conde said.

The study is published this week in the journal *Proceedings of the National Academy of Science*.

Source: Press release from Susana Martinez-Conde

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