

Search

Search

Sections

[Home](#)
[Stock Markets](#)
[US Edition](#)
[Featured Stories](#)
[Buzzing Stocks](#)
[Company Updates](#)
[General Politics](#)
[Celebrity Photos](#)
[Health News](#)
[Law News](#)
[Sports News](#)
[Topnews Forums](#)

About TopNews

[Editor's Choice](#)
[Print Edition Previews](#)
[Contact Information](#)
[Editors & Reporters](#)
[Editorial Policy](#)
[Privacy Policy](#)

TopNews Arab Emirates

'Fashion': a film that scores all fronts
European Tour setback for Mickelson's plans
ADIH signs an MoU with Shanghai construction
President of future Abu Dhabi campus selected by NYU
UAE banks haunted by ATM frauds

[more](#)

Breaking News

[Main](#) [Stocks](#)

Nifty crosses 2800, BSE Sensex at 9270 at 12.20 am
Regulators working on Citigroup bail out plan
Bon Jovi, Amitabh Bachchan to

[Home](#)

Isia Leviant's famous optical illusion is no longer an 'Enigma'

Submitted by [Mohit Joshi](#) on Fri, 11/21/2008 - 04:37. [Featured](#) [Science News](#) [London](#)

[Get Rid of Puffy Eyes](#)

[Our Study and Pictures Prove Which Cream Removes Puffy Eyes-Free Trial](#)
[HealthProductsAnalysis.com/PuffyEye](#)

[Eye Illusions](#)

[1000s of Products - Sale! Compare Prices & Save](#)
[www.Shopping.com](#)



Ads by Google

London, November 21: Neuroscientists in Arizona, U. S., say that it is because of constant tiny movements of the eyes that concentric circles in Isia Leviant's painting "Enigma" appears to be flowing before onlookers.

Susana Martinez-Conde, who led the study at the Barrow Neurological Institute in Phoenix, came to this conclusion after testing the effect of the involuntary jerks of the eyes, scientifically known as microsaccades.

Though the purpose of such jerks is not fully understood, the rate of such movements is known to vary naturally.

During the study, three subjects viewed Enigma, and cameras were simultaneously used to record their eye movements 500 times every second.

The participants had to press a button when the speed of the optical "trickle" of the illusion appeared to slow down or stop, and release it when the trickle seemed faster.

Accounting for the reaction time required to press the button, the researchers found that the illusion became more pronounced when microsaccades were happening at a faster rate.

The illusion vanished when the rate slowed to a stop, the team said.

Martinez-Conde says that her team's findings run counter to previous suggestions that eye movements were not responsible for the effect.

In a previous study, the participants were given contact lenses with tiny stalks attached that held a version of the illusion, ensuring, the team thought, that it was always stationary relative to the eye.

The volunteers still experienced the illusion, suggesting that the brain actually caused the phenomenon.

However, that study did not take into account the effect of microsaccades because the contact lenses do not keep pace with the eye during such rapid, jerky movements.

"We can now rule out the idea that the illusion originates solely in the brain," New Scientist magazine quoted Martinez-Conde as saying.

She further said that the research might help understand other similar illusions, such as Bridget Riley's Fall, or the Ouchi illusion.

"It would be unexpected if Enigma is the only illusion affected by eye movements," she said.

The researcher, however, admitted that her team was still unclear as to what brain processes link the eye movements and the perception of an illusion, something for which they were planning to conduct new experiments.

The study has been published in the journal PNAS. (ANI)

Similar entries

[New touch-based illusion may help gain fresh insights into perception](#)

[A phrase can sound like a song when heard over and over again](#)

[Swedish scientists make body-swapping a virtual reality](#)
[Swedish scientists make body-swapping a virtual reality](#)
[Why the moon will seem so large tonight](#)

[Self is a trick of the mind; shows Body swap research](#)
[Our brains determine what our eyes see](#)

[MIT researchers reveal secrets of rats' whiskers](#)
[Silver-screen audio trick can smooth jerky videos on cellphones](#)

[How our brains see what we can't](#)

Poll

Your View about Economic Crisis:

- Things will get fine in 12 months
- It may stay for 2 - 3 years
- Its bit overplayed; like Oil Prices
- Falling Oil & Commodities will help Economy

Vote

Featured Health News

[Existing antiviral drugs may help treat Alzheimer's disease](#)
[Early intervention could slow progression of cystic fibrosis in infants](#)
[Testosterone offers hope to](#)