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† SHIFTY EYE MOVEMENTS BEHIND FAMOUS OPTICAL ILLUSION

David Robson in *New Scientist*:

Neuroscientists have shown that the way our eyes constantly make tiny movements is responsible for the way concentric circles in Isia Leviant's painting 'Enigma' (see image, right) seem to flow before onlookers' eyes.

Susana Martinez-Conde and her team from the Barrow Neurological Institute in Phoenix, Arizona,

tested whether the effect was down to tiny, involuntary jerks of the eyes, known as microsaccades. Their purpose is not fully understood, but the rate of these movements is known to vary naturally.

In the team's experiment, while three subjects viewed Enigma, cameras recorded their eye movements 500 times every second. The subjects were asked 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 results showed that the illusion became more pronounced when microsaccades were happening at a faster rate. When the rate slowed to a stop, the illusion vanished.

Those results go against earlier findings that suggested eye movements were not responsible for the effect.

