

In [NeuroReport](#), 21(4), pp 264-267, an interesting article by N. Osaka, D. Matsuyoshi, T. Ikeda, and M. Osaka of Kyoto and Osaka Universities, entitled "Implied motion because of instability in Hokusai Manga activates the human motion-sensitive extrastriate visual cortex: an fMRI study of the impact of visual art"



The authors write: "Visual artists developed various visual cues for representing implied motion in two-dimensional art. Photographic blur, action lines, affine shear, instability, superimposition, and stroboscopic images are possible technical solutions for representing implied movement. In a realistic painting, artists have tried to represent motion using superimposed or blurred images, while in abstract painting, like Marcel Duchamp artists have tried to portray a moving object on a static canvas by superimposing successive portrayals of the object in action...As one of a leading artist of the 'Ukiyo-e' school in the 18th century, Hokusai made great progress in representing implied movement using unstable bodily action without introducing action lines or even blur." They go on to investigate how our visual brain creates the impression of motion using such implied movement clues.

The article is available (with subscription) [here](#), and there is a good presentation [here](#) at the excellent blog [Neurophilosophy](#).