CultureCase

How art changes your brain

This research was conducted by **Anne Bolwerk and four others** at **University Hospital Erlangen and Friedrich-Alexander-University Erlangen-Nürnberg, Germany**

Summary

Looking at art can invoke strong emotions, but can it actually change the connections you make in your brain? Researchers in Germany recruited 28 adults and randomly assigned them into either evaluating art at a museum or actively producing art in an art class over a 10 week period. They found that the participants who produced art showed increased brain activity in the areas associated with self-awareness and memory processing. By contrast, there were no significantly altered brain patterns in the people that evaluated art in a museum.

Using MRI brain scanning to see where the brain is most active

All participants undertook a psychological examination before and after the programme. The researchers also used functional MRI brain scanning, which analyses blood flow to the brain to see where it is most active. In the psychological tests, those that produced art showed signs of becoming better able to adapt to stress and adversity. This also translated to their brain scans that showed increased activity in the areas associated with self-awareness and memory processing.

Producing more than meets the eye

This study was done with a small sample and not all confounding factors were controlled for (such as participant's socio-economic status and how many sessions participants were able to attend). This is the first study to show both

neural changes and psychological changes when adults produce art. More research needs to be done to see how important these changes are.

This summary is by **Saoirse O'Toole, King's Knowledge Exchange Associate**

Keywords

painting **experiment** **brain** **art** **Germany**

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