

Art may reveal early signs of dementia 艺术作品可显示失智症前兆

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我们能否从艺术作品中发现失智症以及其它退化性疾病的迹象？研究人员详尽分析了多名曾患神经疾病的艺术家的作画笔法。从一系列有趣的线索中可以看出，在艺术家们表现出明显的症状之前，其脑部就已经产生了变化。科学家对这些作品进行了“分形分析”，这种数学方法探讨的是在数学界和自然界中反复出现的固定模式。请听 Dominic Hughes 的报道。

Researchers use a complex method called '**fractal analysis**' as a way of looking at **recurring** patterns in both maths and in nature. They include the recurring patterns of our **brainwaves** and **heartbeats** as well as the **brushstrokes** of artists, which are as **distinct** as individual handwriting.

A psychologist, Alex Forsythe from the University of Liverpool, **carried out** a fractal analysis of more than two thousand works by seven famous artists. Among those who **developed** dementia or Parkinson's disease, such as Willem de Kooning and Salvador Dali, there was a significant change in the tiny patterns left by their brushstrokes decades before any obvious symptoms.

But for artists such as Picasso or Monet, who both died without developing any known **neurological disorders**, there was no **alteration**, regardless of style or **subject matter**.

词汇表

fractal analysis	分形分析（数学研究术语）
recurring	反复出现的
brainwaves	脑电波
heartbeats	心跳
brushstrokes	（作画的）笔法
distinct	特征明显的
carried out	执行了（计划、研究或行动等）
developed	患（病）
neurological	神经系统的
disorders	（精神或身体机能失调造成的）疾病
alteration	变化过程
subject matter	（艺术作品的）题材

测验

请听报道并回答下列问题。

1. What's the name of the method that researchers use to look at recurring patterns in both maths and in nature?
2. How many artists' works did the psychologist look at during his research?
3. True or false? *There was a significant change in the patterns of Picasso's brushstrokes, according to the text.*
4. Which word in the text means 'consisting of various interconnected parts'?

答案

1. What's the name of the method that researchers use to look at recurring patterns in both maths and in nature?

Fractal analysis.

2. How many artists' works did the psychologist look at during his research?

The psychologist looked at more than two thousand works by seven famous artists during his research.

3. True or false? *There was a significant change in the patterns of Picasso's brushstrokes, according to the text.*

False. According to the text, there was no such alternation in the works by artists such as Picasso or Monet, regardless of style or subject matter.

4. Which word in the text means 'consisting of various interconnected parts'?

Complex.