

## Could Time Travel Be Real? 时空穿梭成真?

英语学习点: *Physics Vocabulary* 物理词汇

A discovery in the last week has turned physics on its head.

A team of scientists have said that they recorded subatomic particles called neutrinos travelling faster than light. No-one thought that was possible.

It is a finding that could overturn one of Einstein's long-accepted fundamental laws of the Universe.



*Doctor Who is a time-travelling character in a popular BBC TV science-fiction series*

The finding was made by researchers at Cern in Switzerland and Gran Sasso in Italy.

The speed of light is a cornerstone in Einstein's theory of special relativity, which is what gives us the concept of causality: causes precede effects.

Among the implications of this challenge to mainstream theory is the fact that it could mean time travel is possible, a hypothesis that has long convinced writers of science fiction.

But the experiment has its sceptics. A physicist from the University of Surrey, Jim Al-Khalili, believes that the current consensus is correct and that the light-speed barrier is impossible to surpass.

He has tried to pick holes in the methodology of the Cern researchers. So sure is Al-Khalili that they have made an error in their measurements that he has decided to defend the laws of physics by challenging the laws of social convention.

Al-Khalili said: "If the Cern experiment proves to be correct... I will eat my boxer shorts on live TV."

词汇表请参看答案与词汇部分

## Quiz 测验

阅读短文并回答问题。

1. What theory could be affected by the new discovery?
2. Does the new experiment prove the theory most physicists believe?
3. What sci-fi activity could be possible if the new findings are correct?
4. Why does Jim Al-Khalili think the experiment is wrong?
5. Is the following statement true, false or not given? *"Al-Khalili will challenge social conventions by eating his underwear on live TV."*

## Exercise 练习

请你在不参考课文的情况下完成下列练习。从每个表格中选择一个意思合适的单词填入句子的空格处。

1. A judge is considering whether to \_\_\_\_\_ the murder conviction of a woman and release her from prison.

overtake	surpass	supervise	overturn
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2. "When I read that book, everything I thought I knew about maths was turned on its \_\_\_\_\_."

hand	head	heels	house
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3. "Investment in business is a \_\_\_\_\_ in the government's economic recovery plan."

cornerstone	millstone	heavy stone	stone
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4. Climate change has great \_\_\_\_\_ for agriculture.

complications	inspirations	implications	perforations
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5. "Why can't you ever be positive about my work? You always have to \_\_\_\_\_ in everything!"

stick poles	stick moles	fill holes	pick holes
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## Answers and Glossary 答案与词汇

### Quiz 小测验

1. What theory could be affected by the new discovery? Albert Einstein's theory of special relativity.
2. Does the new experiment prove the theory most physicists believe? No, it challenges mainstream theory.
3. What sci-fi activity could be possible if the new findings are correct? Time travel.
4. Why does Jim Al-Khalili think the experiment is wrong? He thinks that the researchers made a mistake with their methodology, the way they did the experiment.
5. Is the following statement true, false or not given? "*Al-Khalili will challenge social conventions by eating his underwear on live TV.*" Not given – Al-Khalili will only do this if the new Cern experiment proves to be true.

### Exercise 练习

1. A judge is considering whether to overturn the murder conviction of a woman and release her from prison.
2. "When I read that book, everything I thought I knew about maths was turned on its head."
3. "Investment in business is a cornerstone in the government's economic recovery plan."
4. Climate change has great implications for agriculture.
5. "Why can't you ever be positive about my work? You always have to pick holes in everything!"

### Glossary 词汇表

to turn something on its head 完全改变	subatomic particle 次原子粒子
to overturn 推翻	long accepted 长期被认可的
cornerstone 基石	theory of special relativity 狭义相对论
the concept of causality 因果关系的概念	implications 影响, 含义, 推断
mainstream theory 主流理论	time travel 时空穿梭
hypothesis 假设	science fiction 科幻小说
experiment 实验	sceptic 怀疑论者
current consensus 当前的共识	the light-speed barrier 光速障碍
overcome 克服	to pick holes in something 寻找漏洞
methodology 方法论, 方法学	social convention 社会惯例, 常规