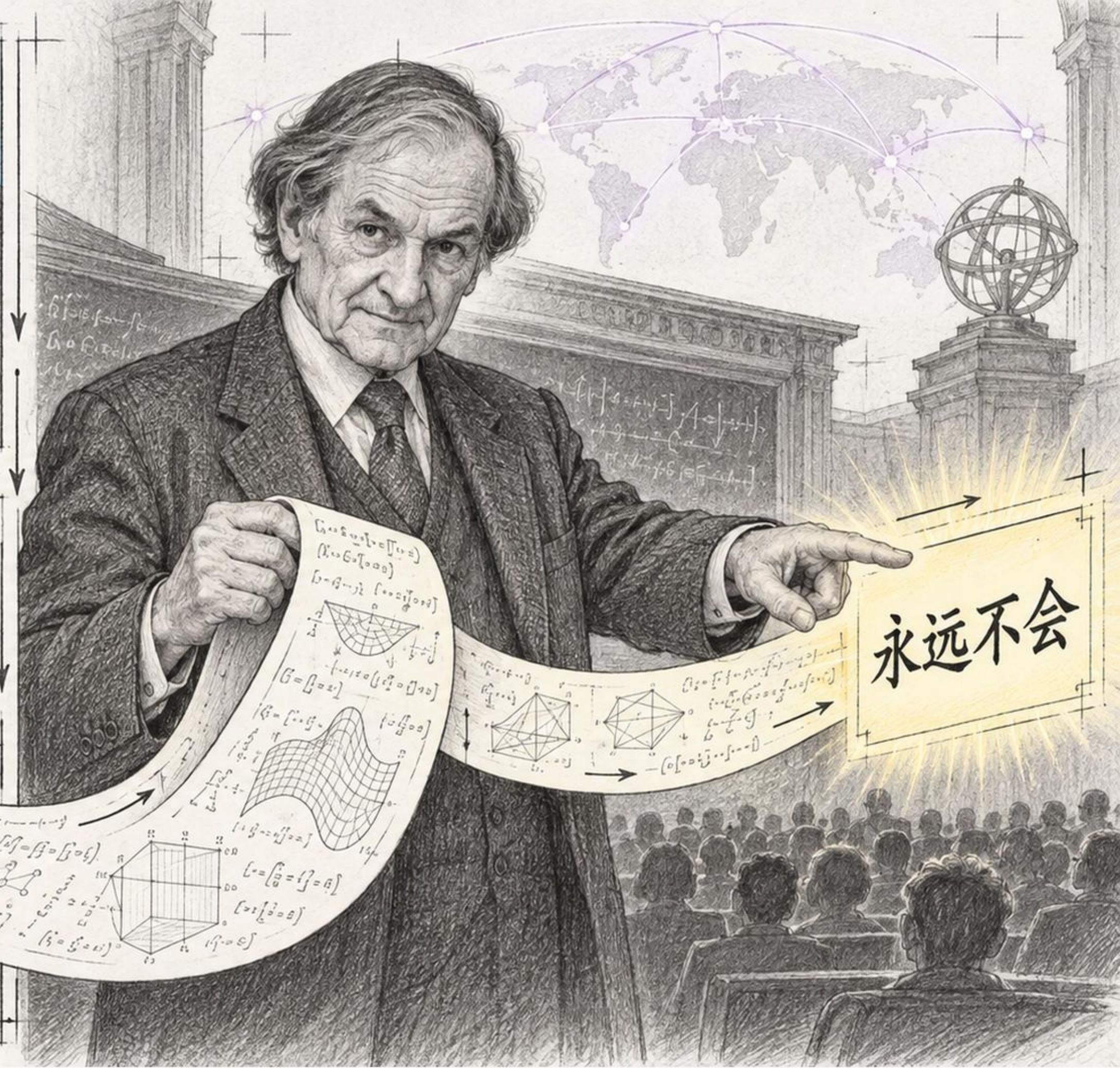
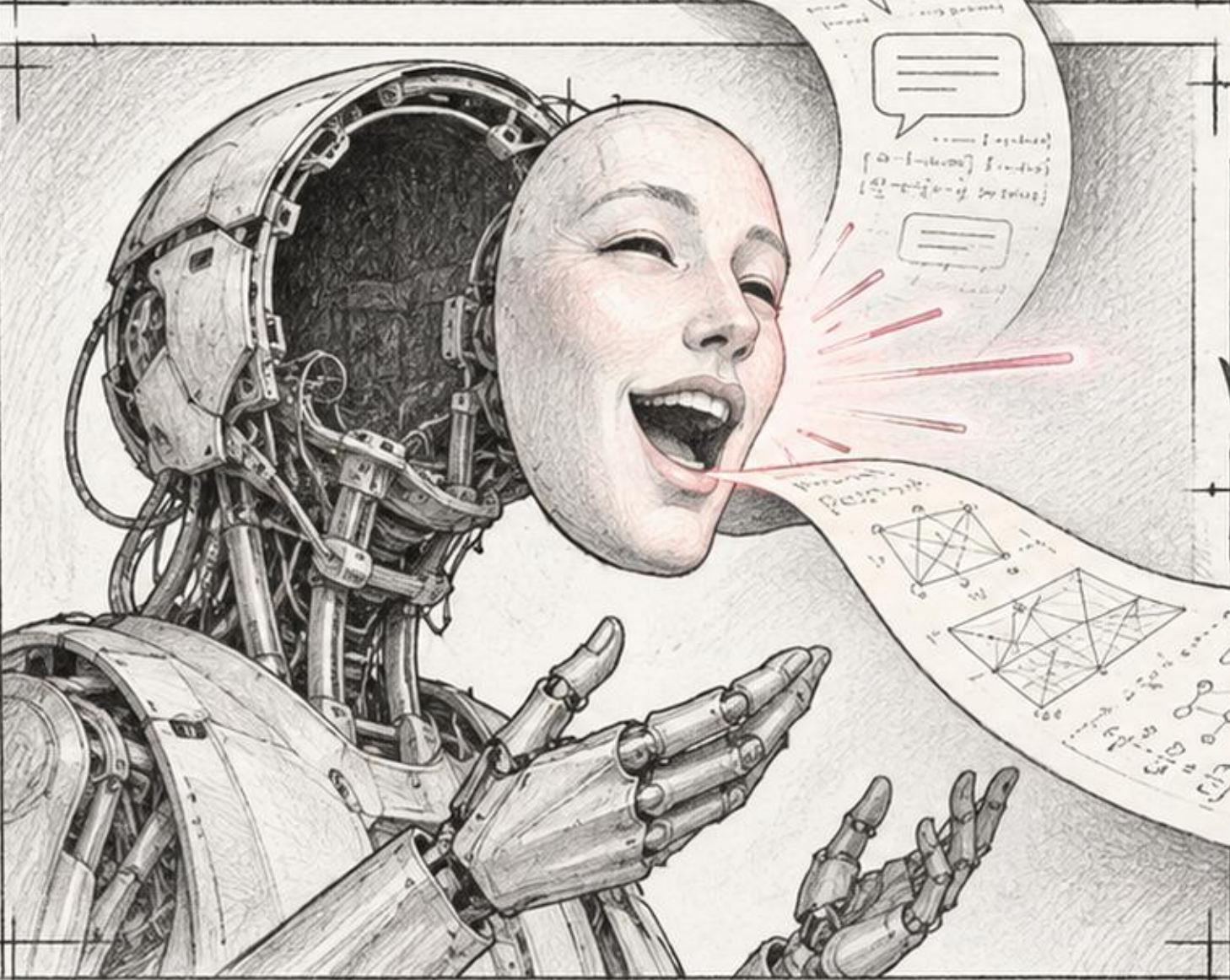
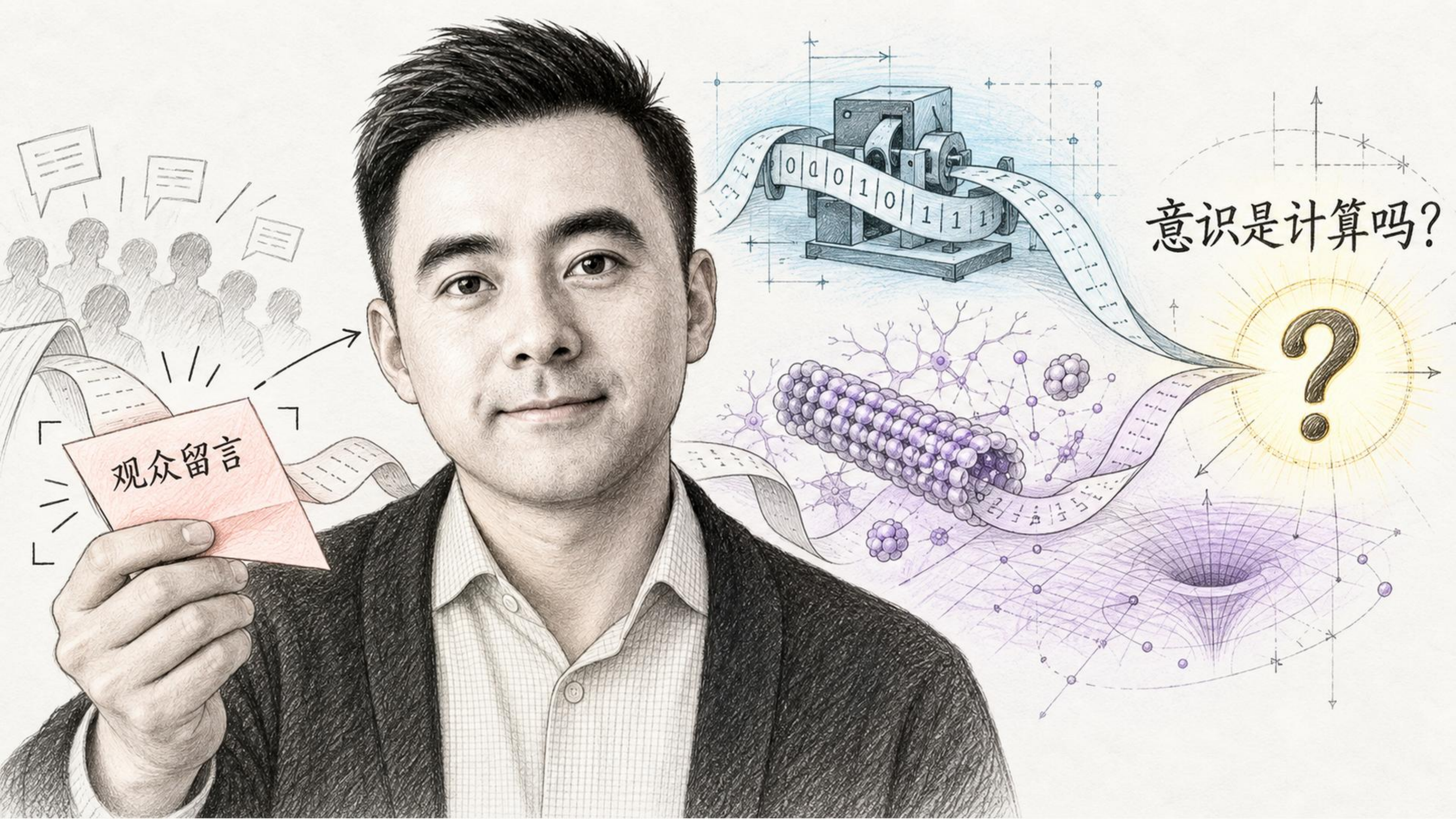


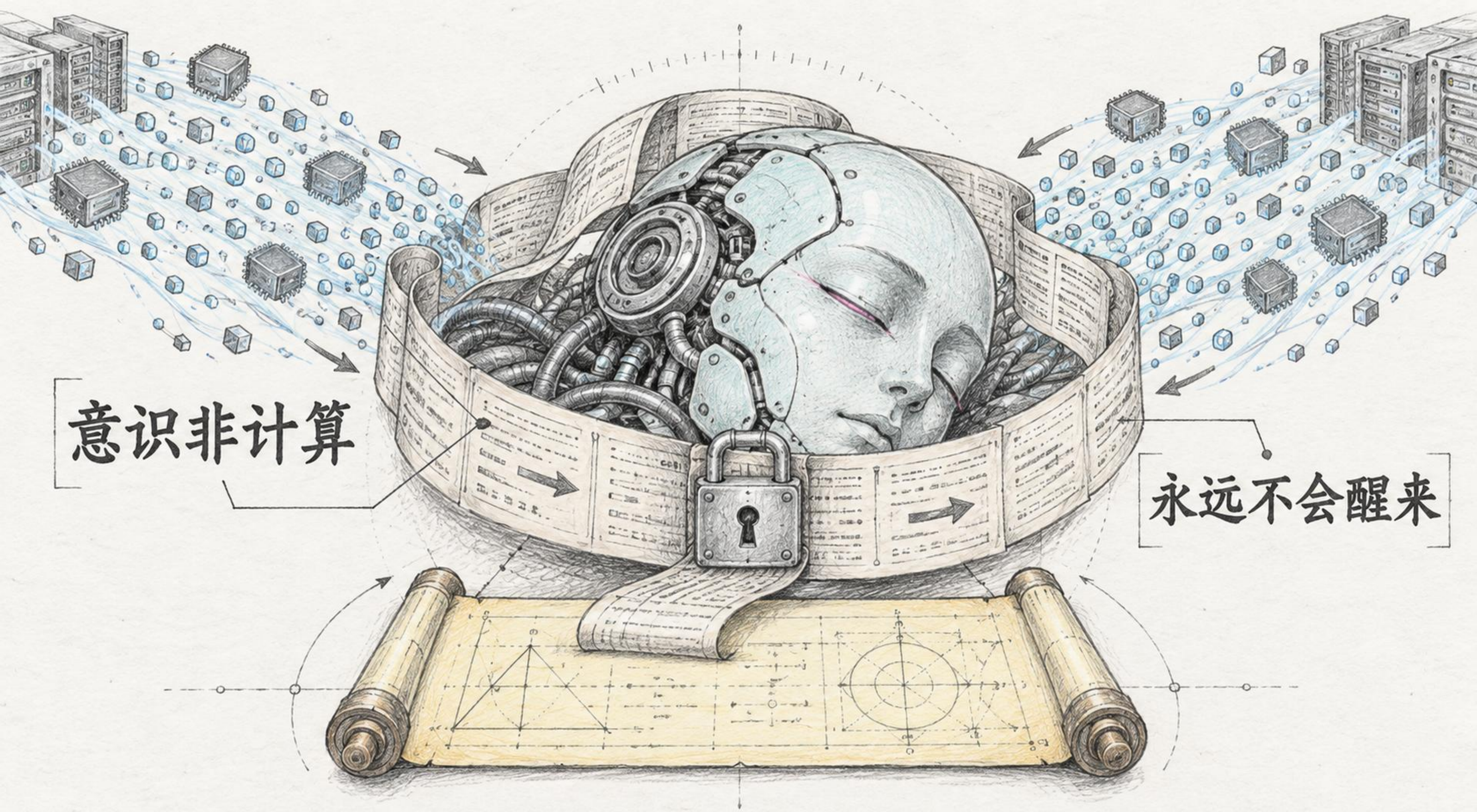
AI有意识吗？





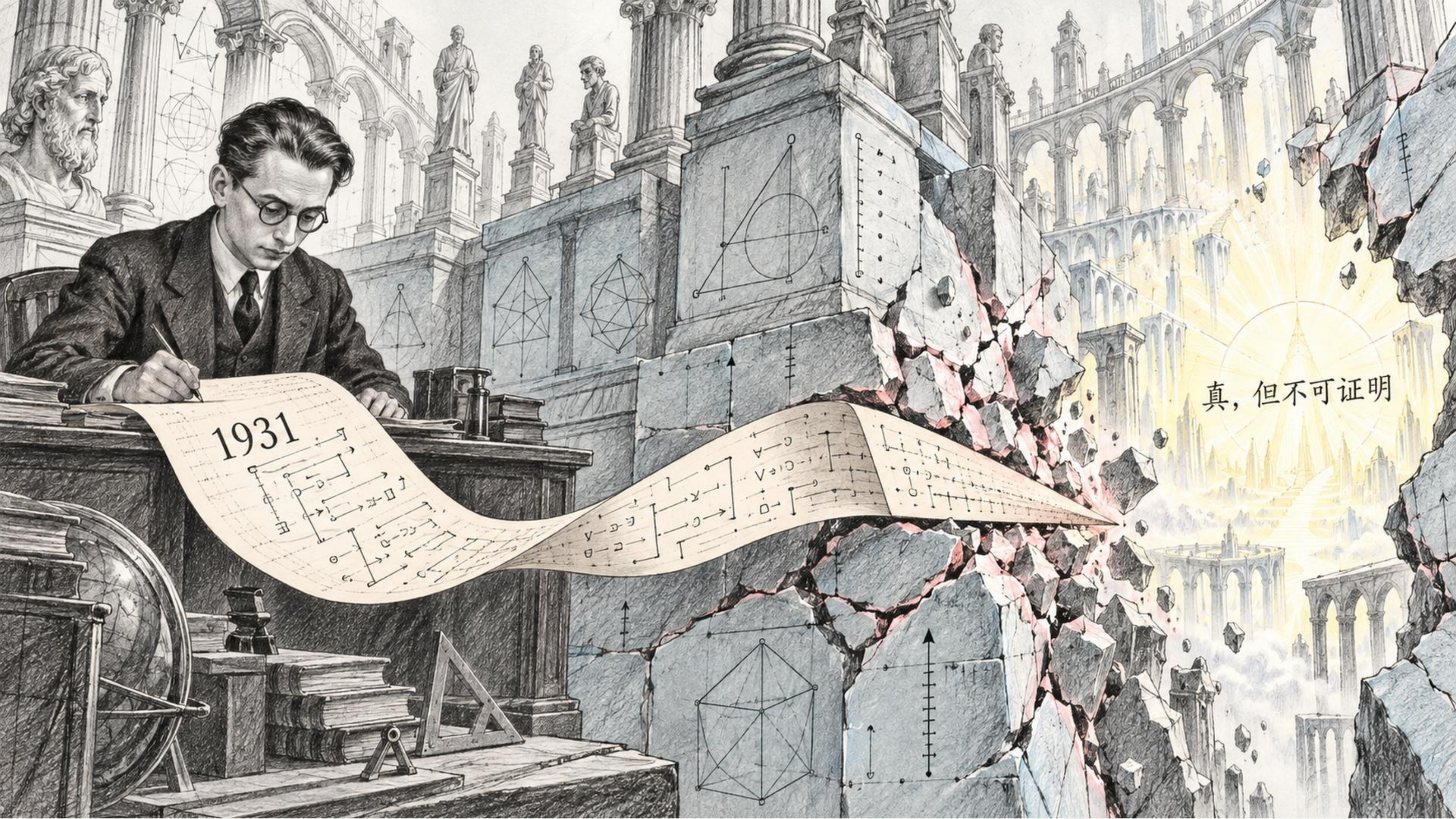
意识是计算吗?

观众留言



意识非计算

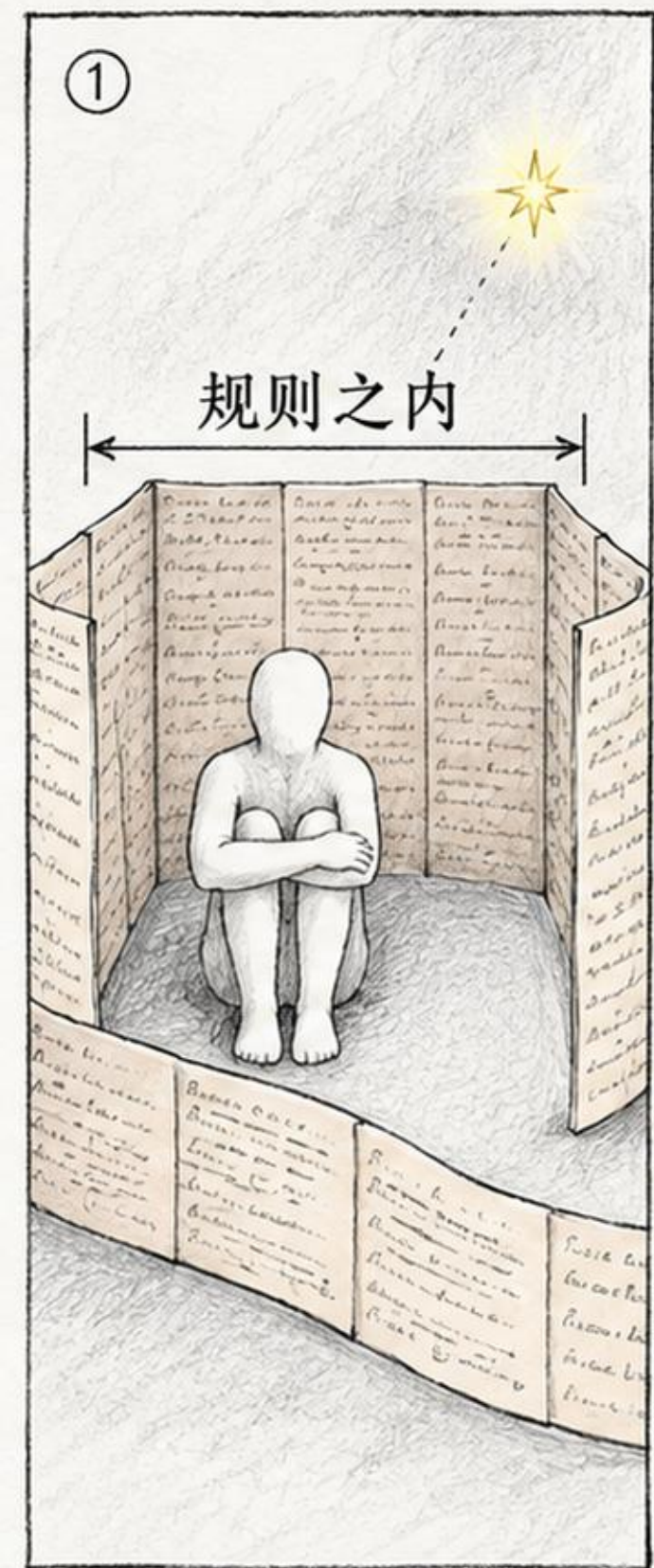
永远不会醒来



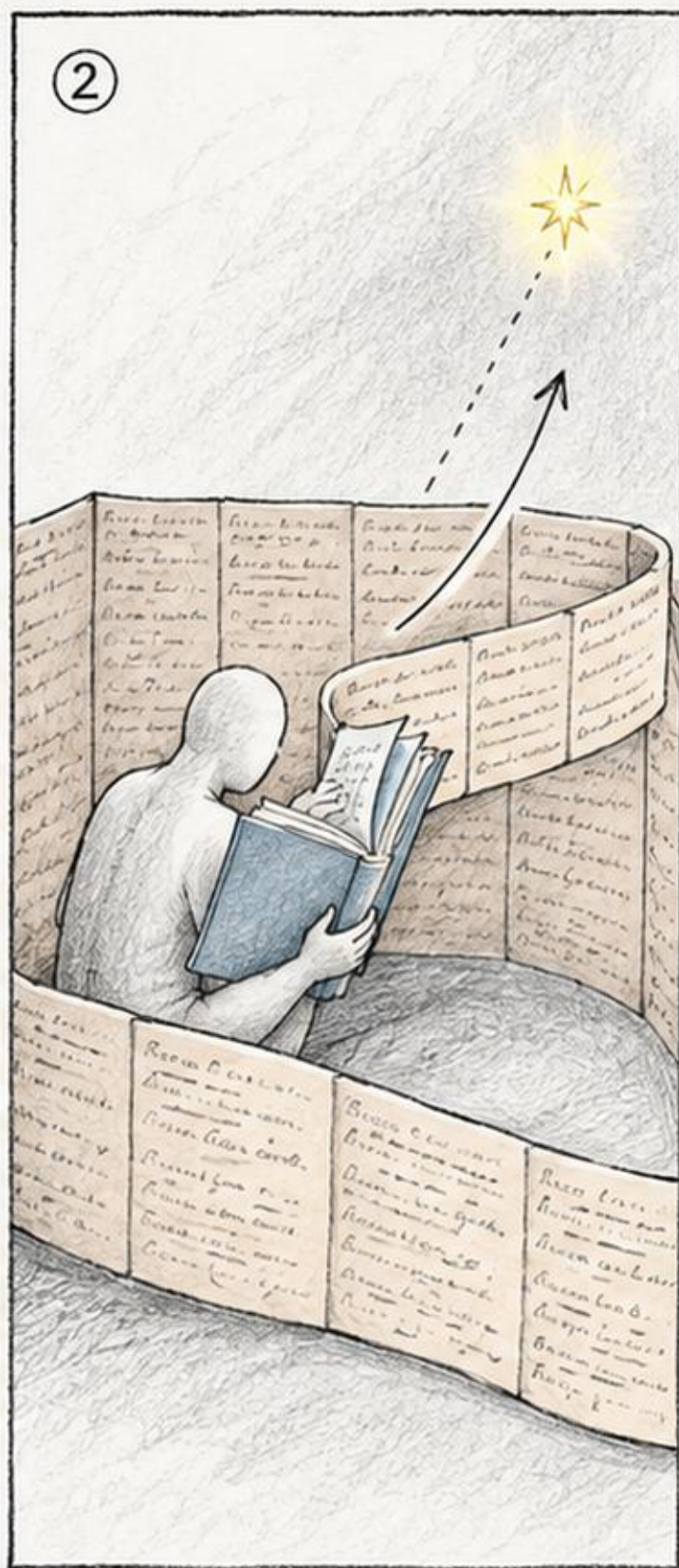
真，但不可证明

①

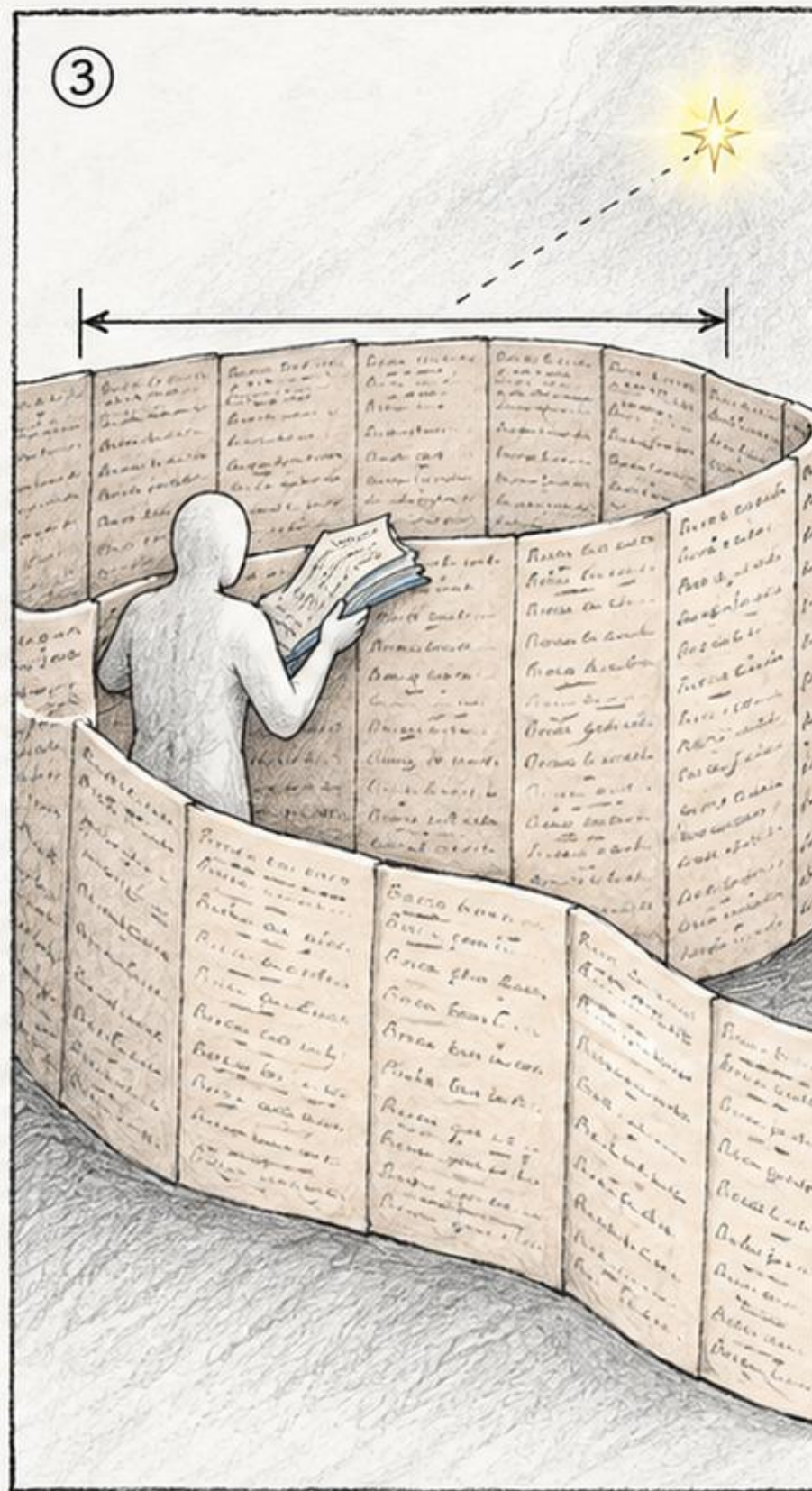
规则之内



②



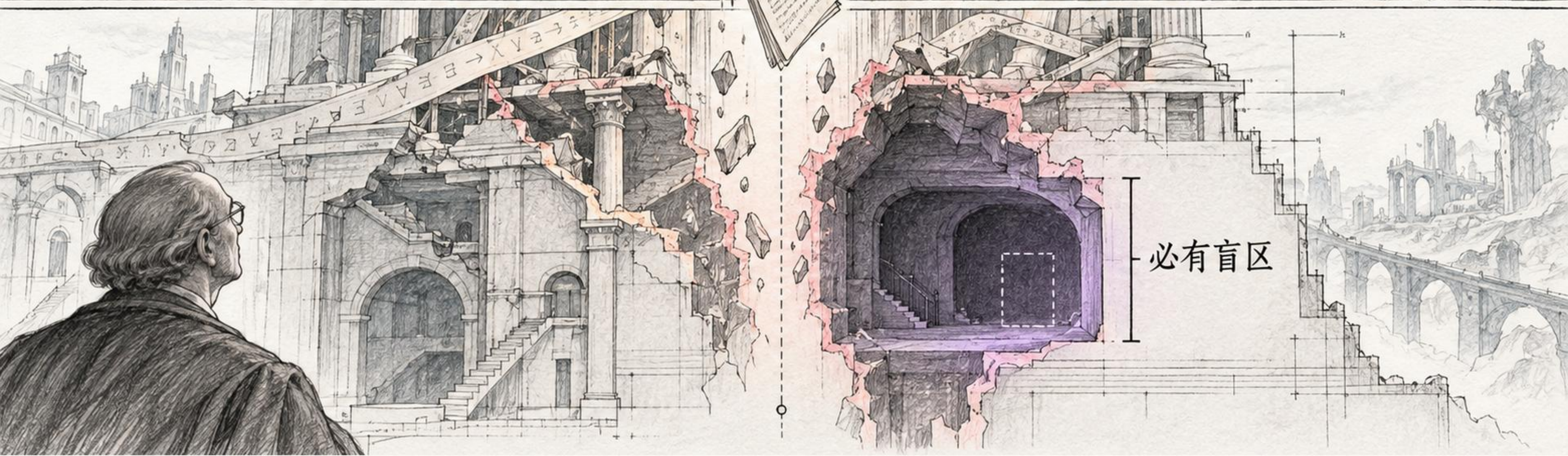
③

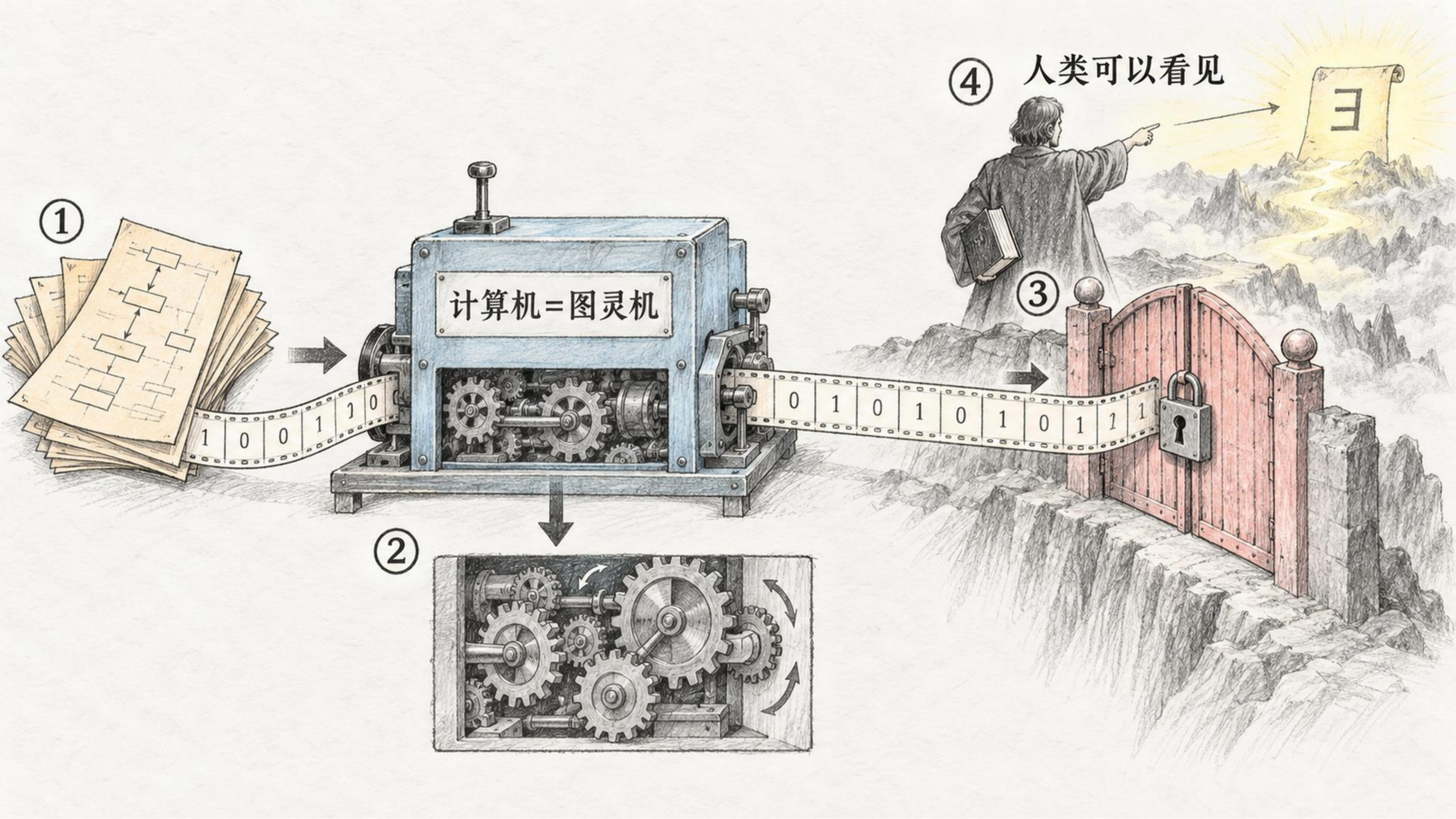


④

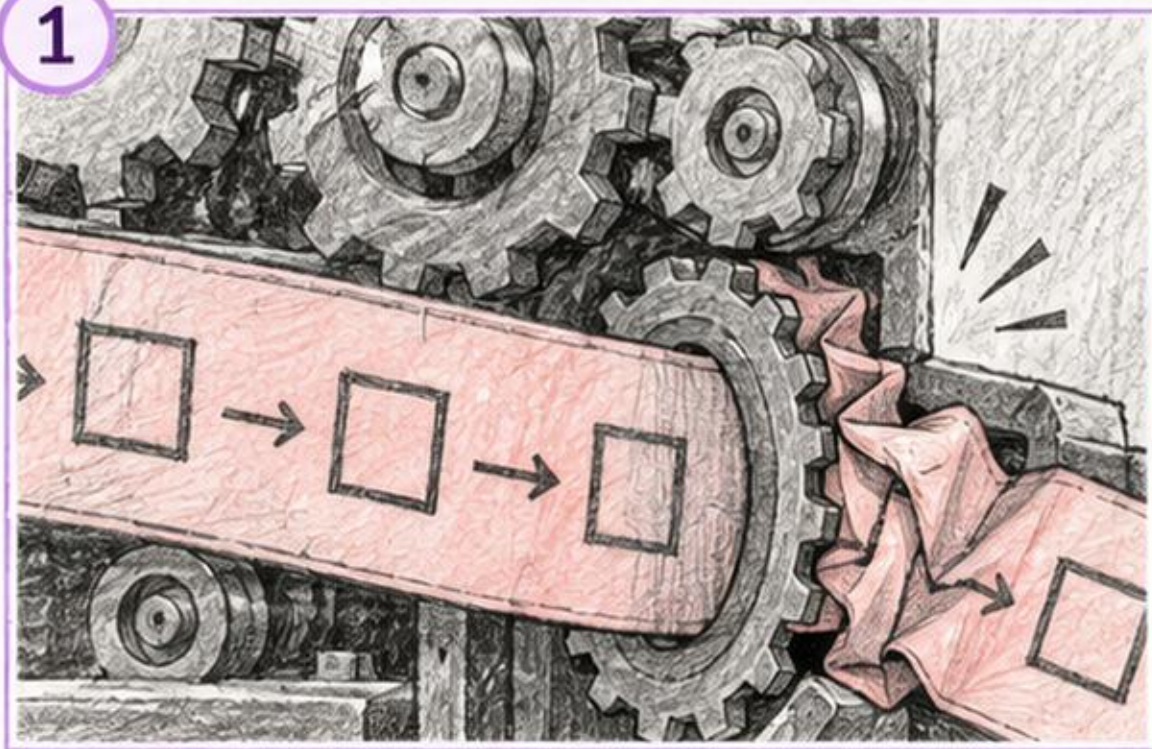
碰不到







1



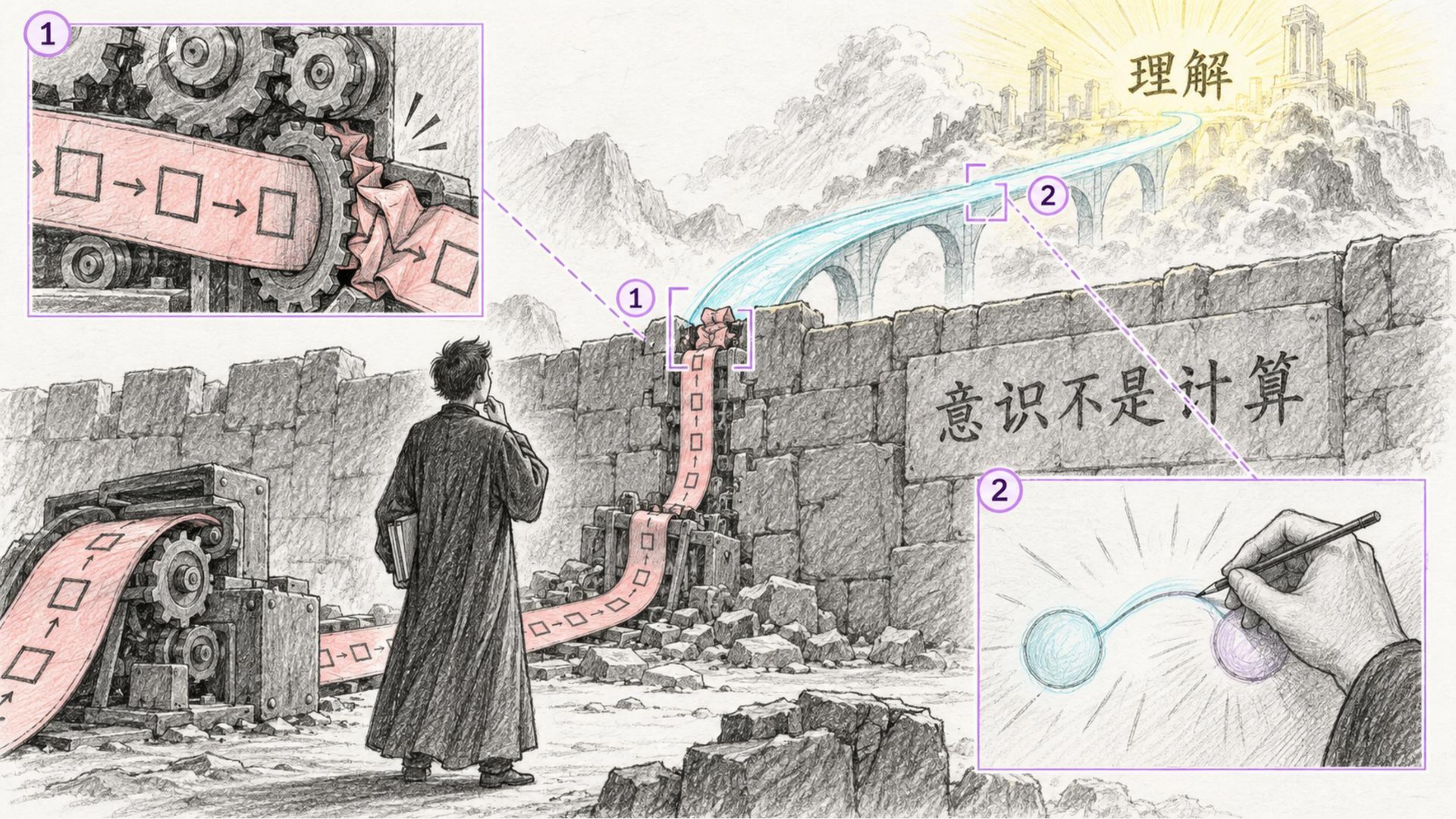
理解

2

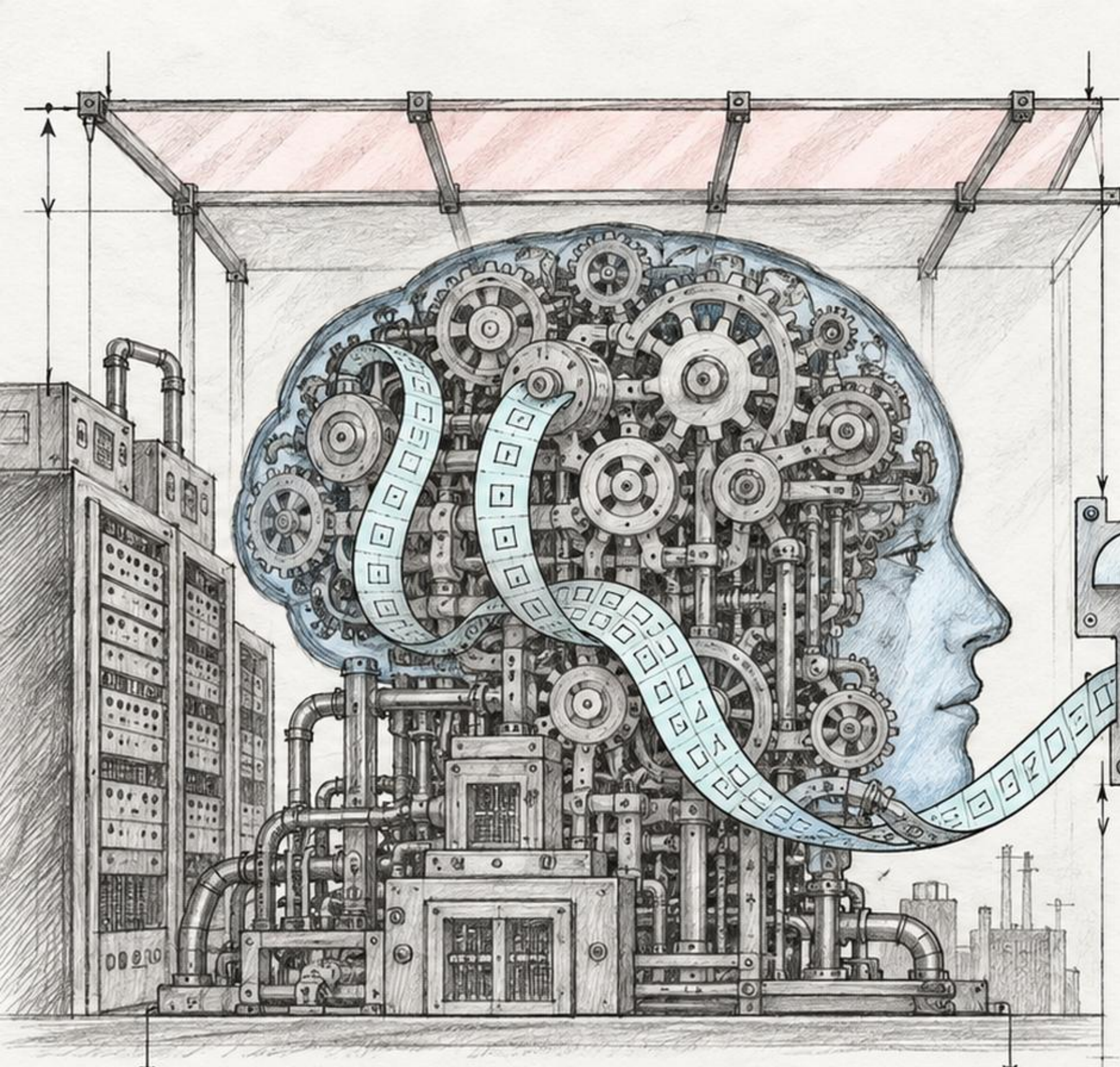
1

2

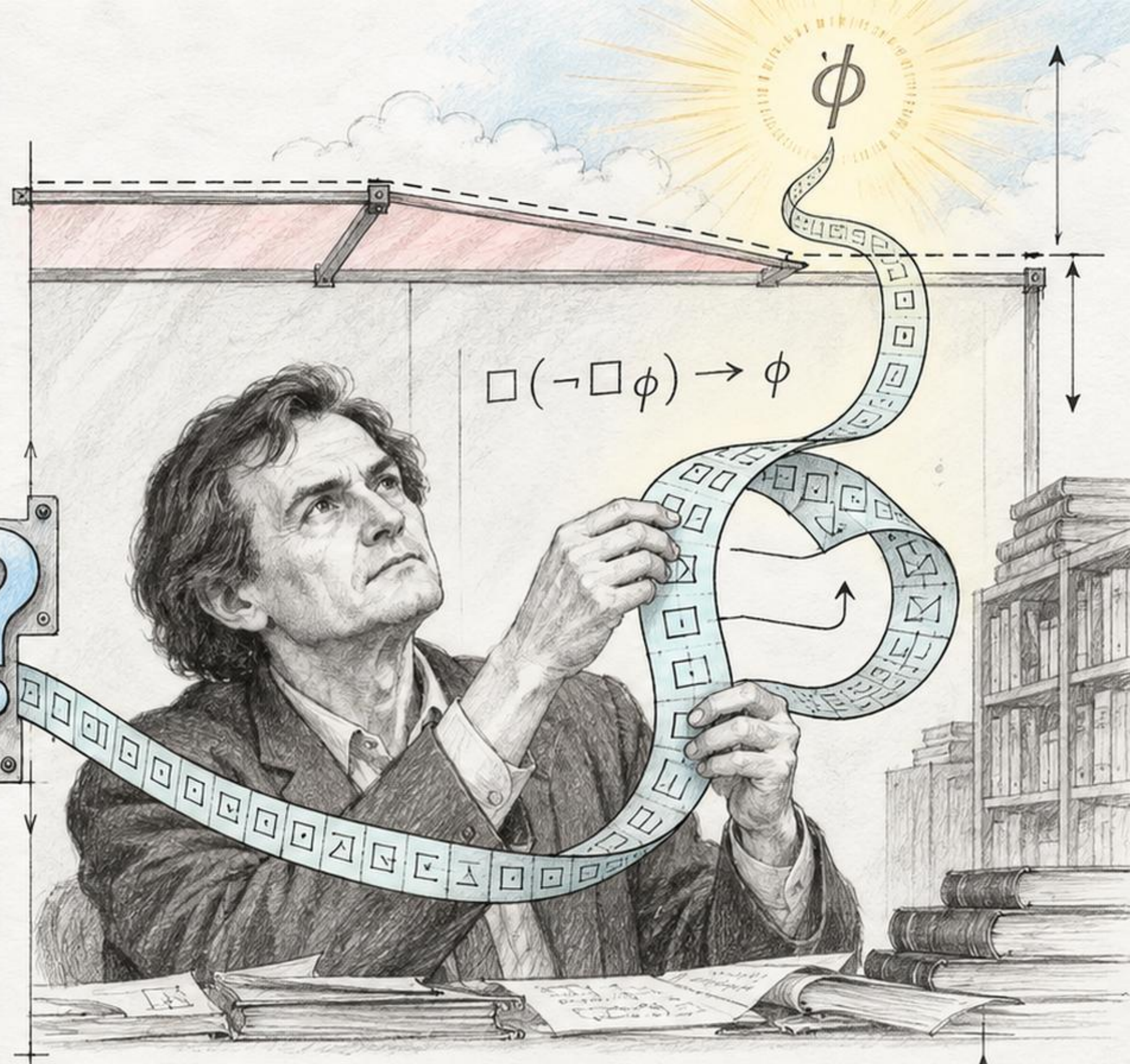
意识不是计算



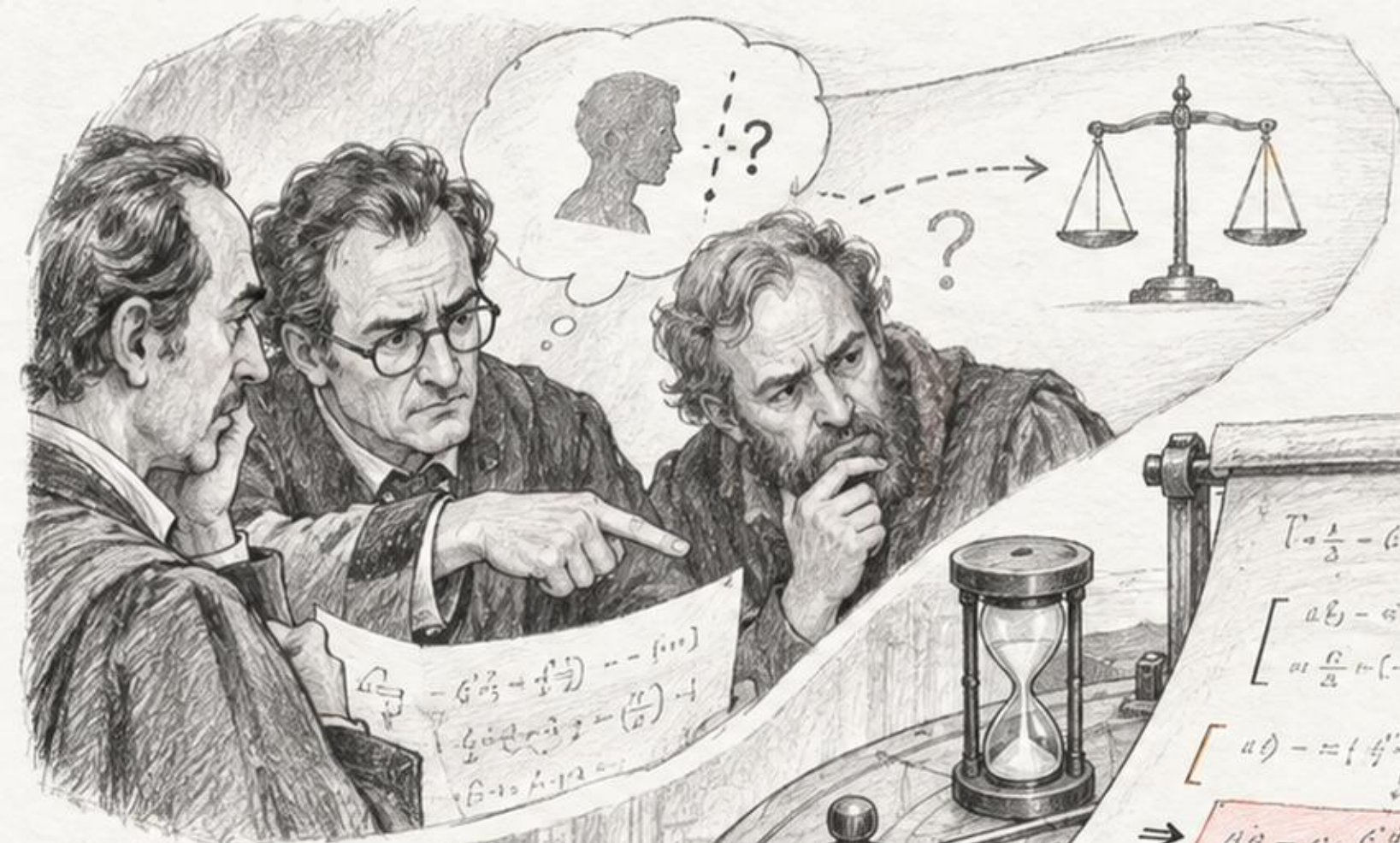
2



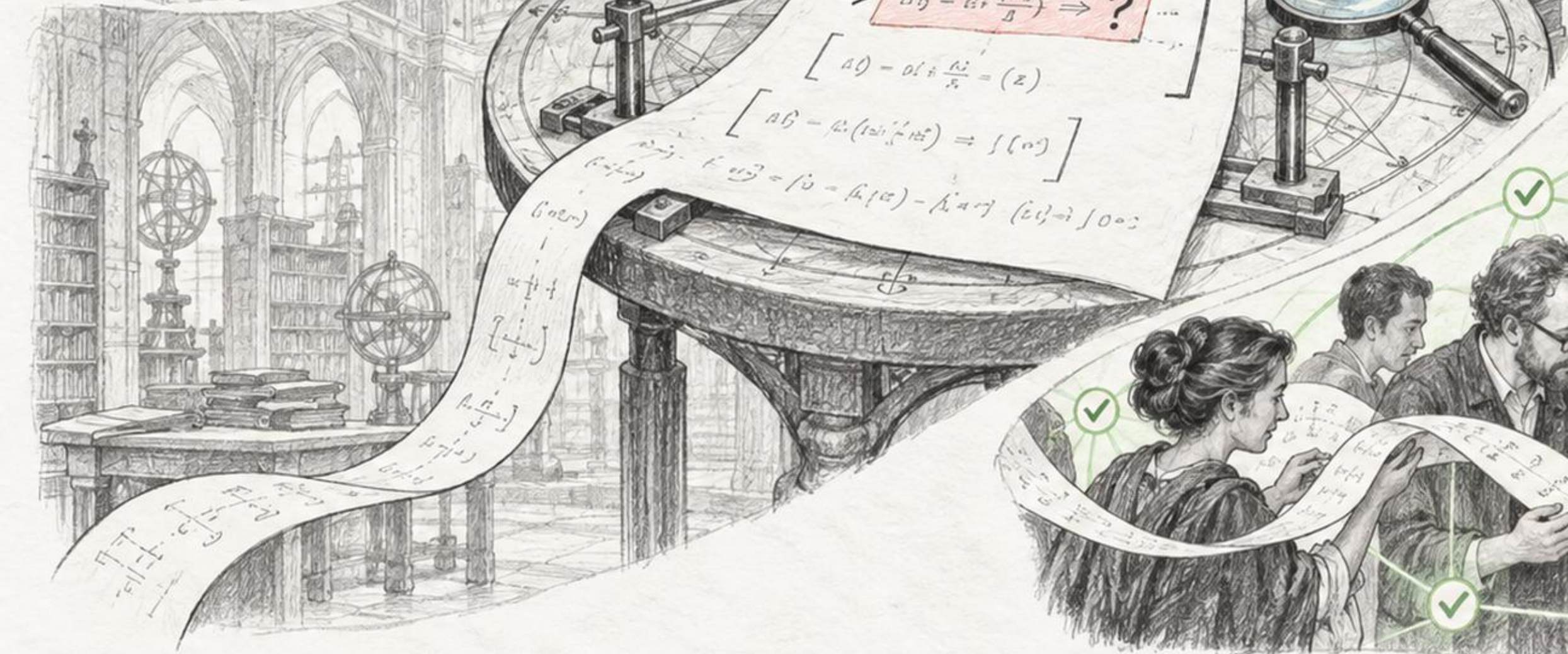
只是高级计算？



不服从算法



人会犯错



共同体理解

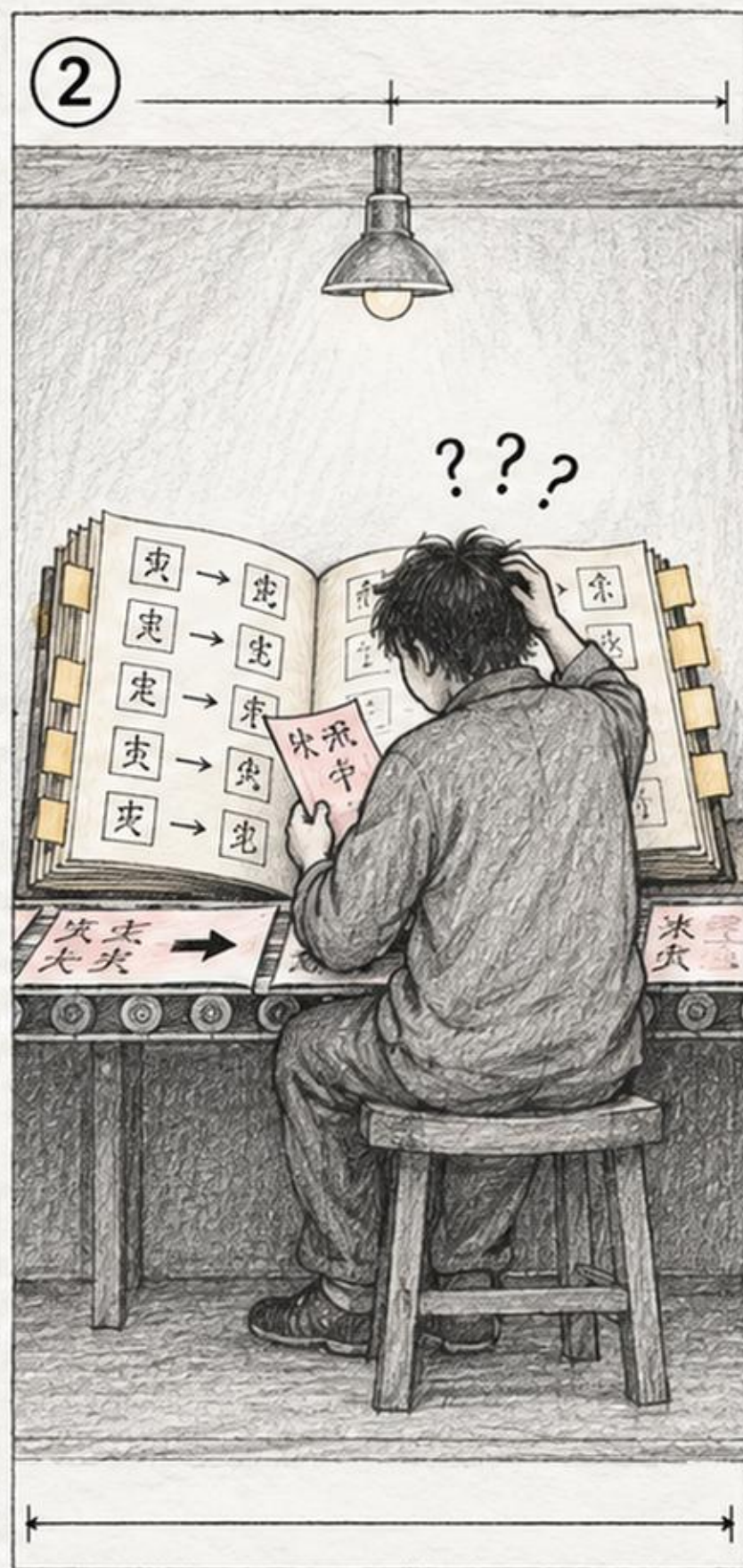
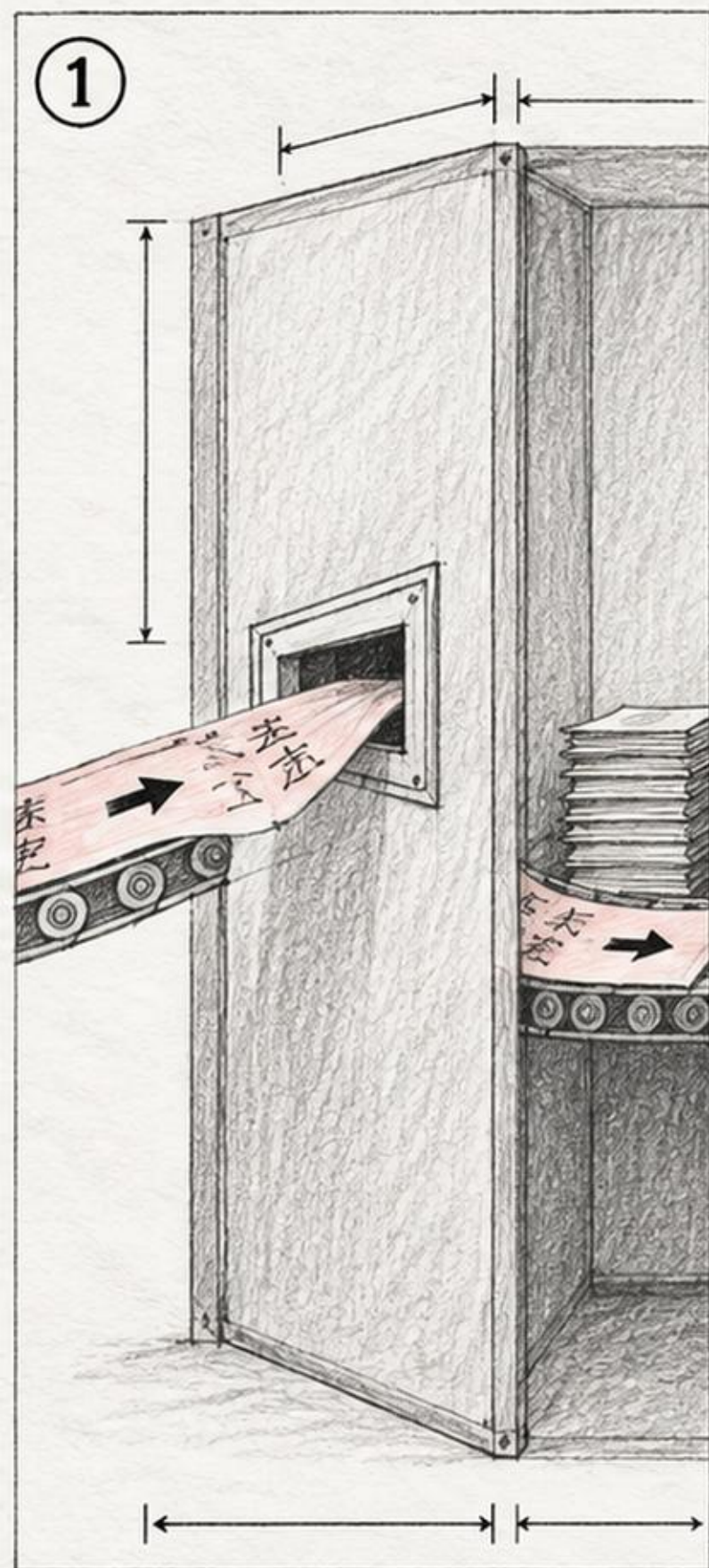




理解是什么？

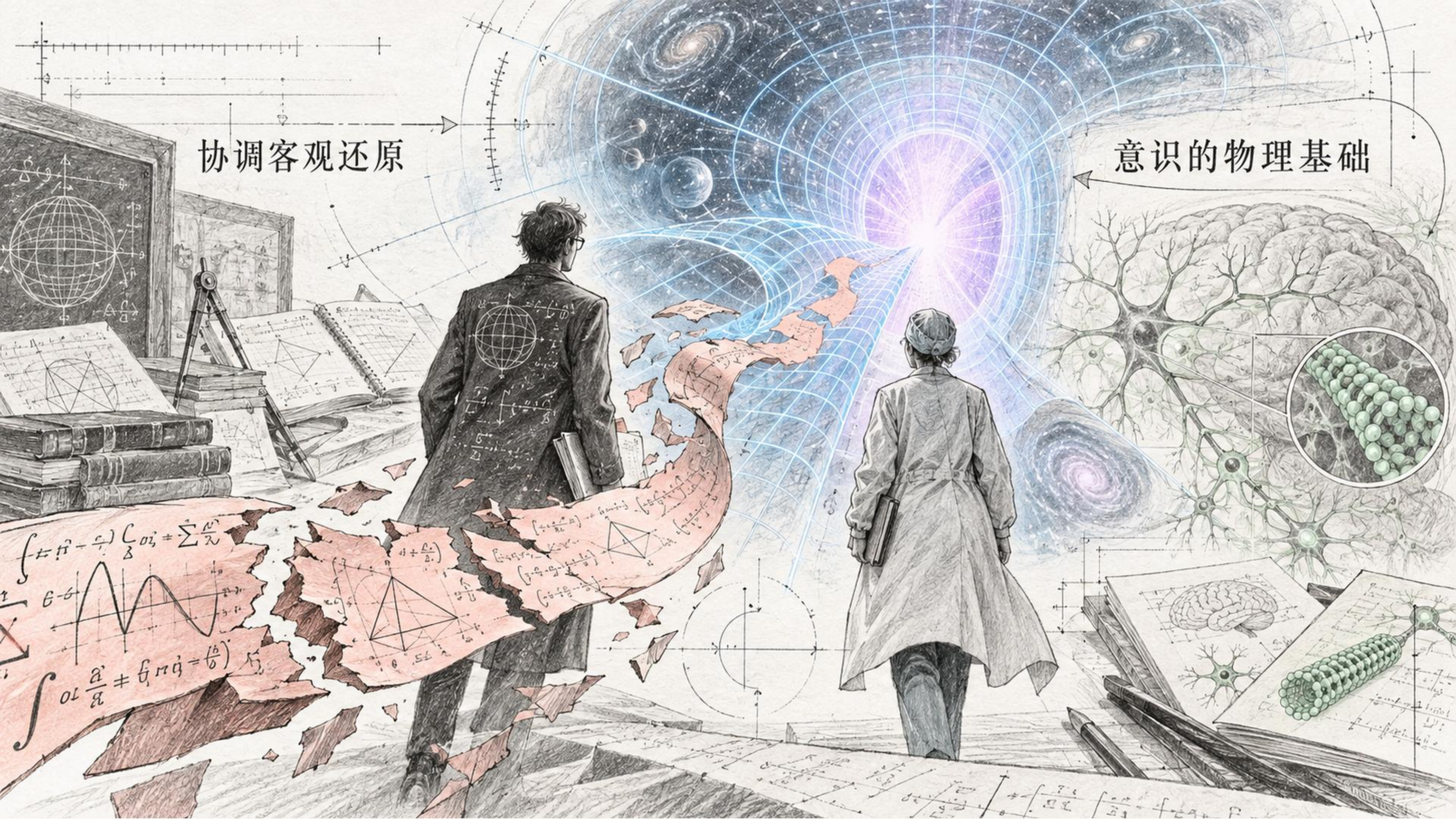
验证 ≠ 理解？

$$\begin{aligned} \Delta &= \int_{-1}^1 \frac{1}{x^2} dx = \int_{-1}^1 \frac{1}{x^2} dx \rightarrow \int_{-1}^1 \frac{1}{x^2} dx = \left[-\frac{1}{x} \right]_{-1}^1 = -\frac{1}{1} - \left(-\frac{1}{-1} \right) = -1 - 1 = -2 \\ \Delta &= \int_{-1}^1 \frac{1}{x^2} dx = \int_{-1}^1 \frac{1}{x^2} dx \rightarrow \int_{-1}^1 \frac{1}{x^2} dx = \left[-\frac{1}{x} \right]_{-1}^1 = -\frac{1}{1} - \left(-\frac{1}{-1} \right) = -1 - 1 = -2 \\ \therefore \int_{-1}^1 \frac{1}{x^2} dx &= \int_{-1}^1 \frac{1}{x^2} dx \rightarrow \int_{-1}^1 \frac{1}{x^2} dx = \left[-\frac{1}{x} \right]_{-1}^1 = -\frac{1}{1} - \left(-\frac{1}{-1} \right) = -1 - 1 = -2 \\ \therefore \int_{-1}^1 \frac{1}{x^2} dx &= \int_{-1}^1 \frac{1}{x^2} dx \rightarrow \int_{-1}^1 \frac{1}{x^2} dx = \left[-\frac{1}{x} \right]_{-1}^1 = -\frac{1}{1} - \left(-\frac{1}{-1} \right) = -1 - 1 = -2 \end{aligned}$$



协调客观还原

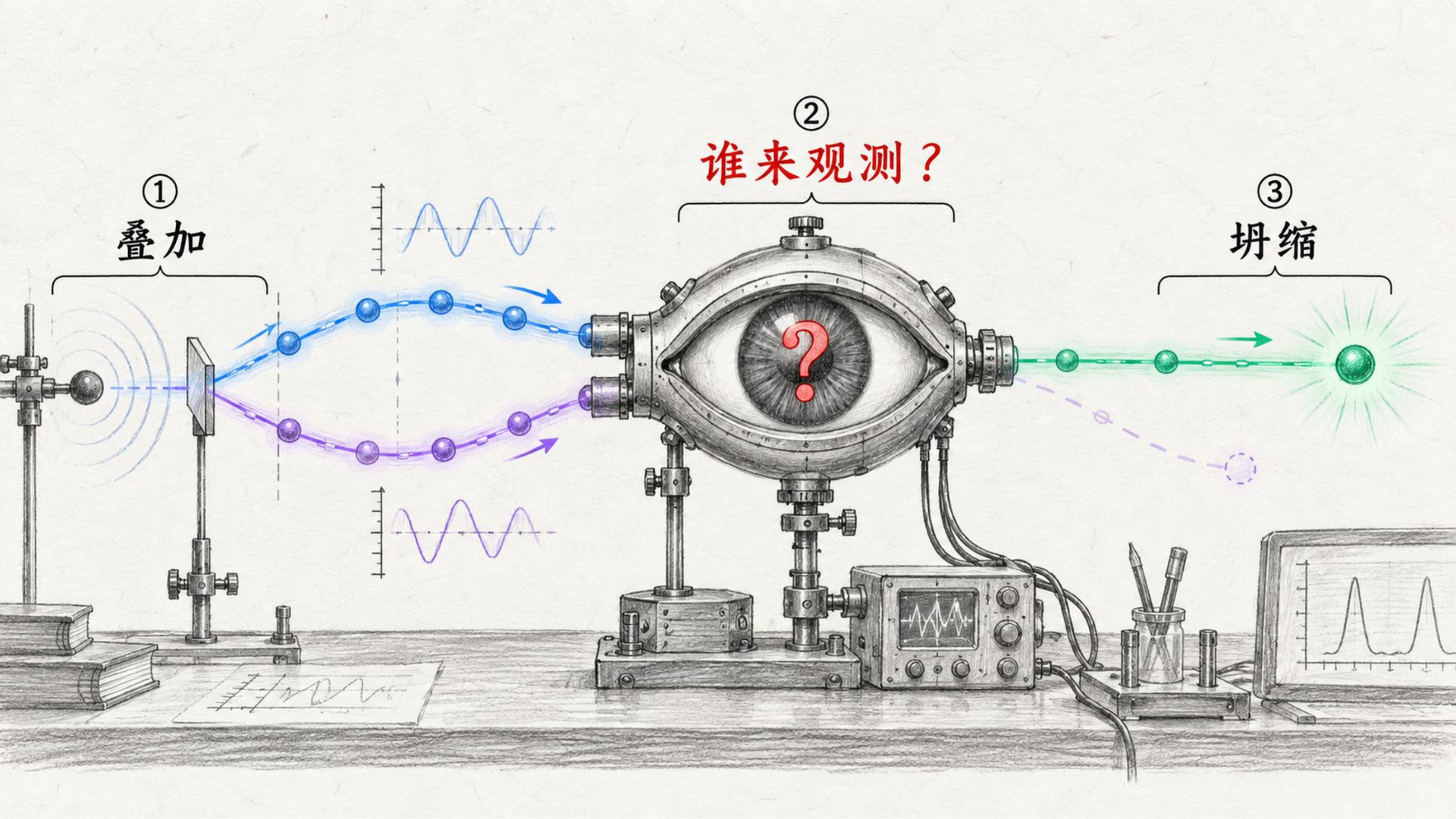
意识的物理基础

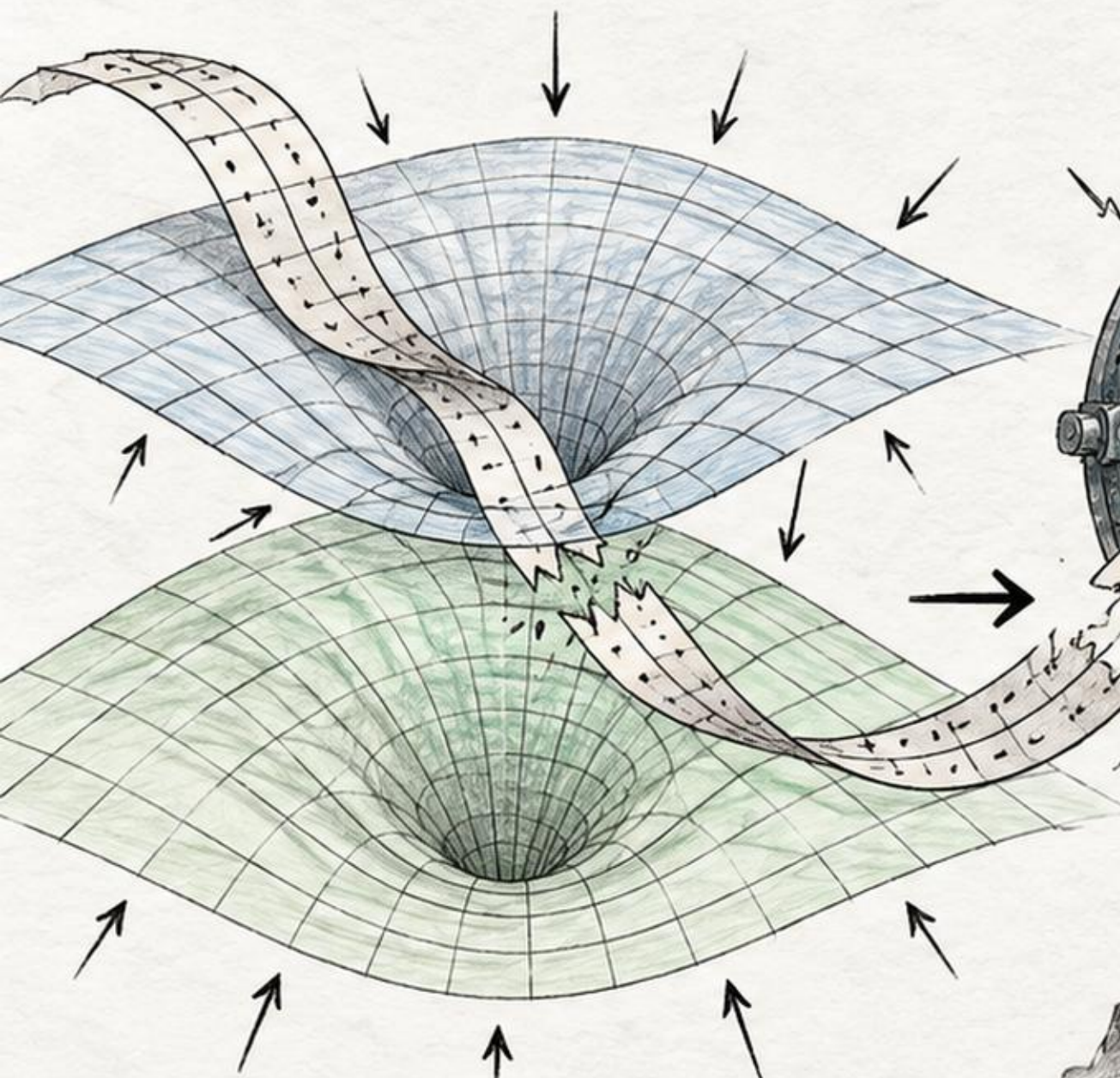


①
叠加

②
谁来观测？

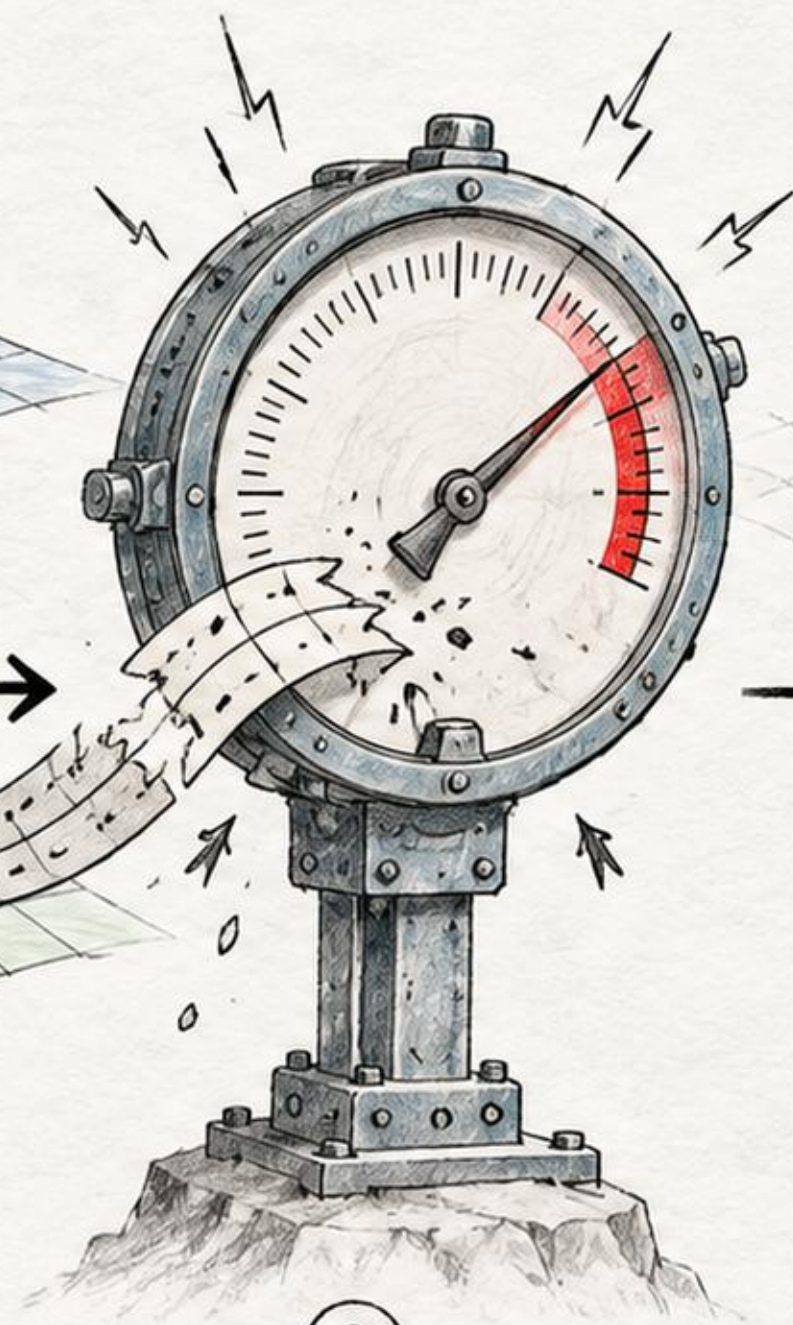
③
坍缩



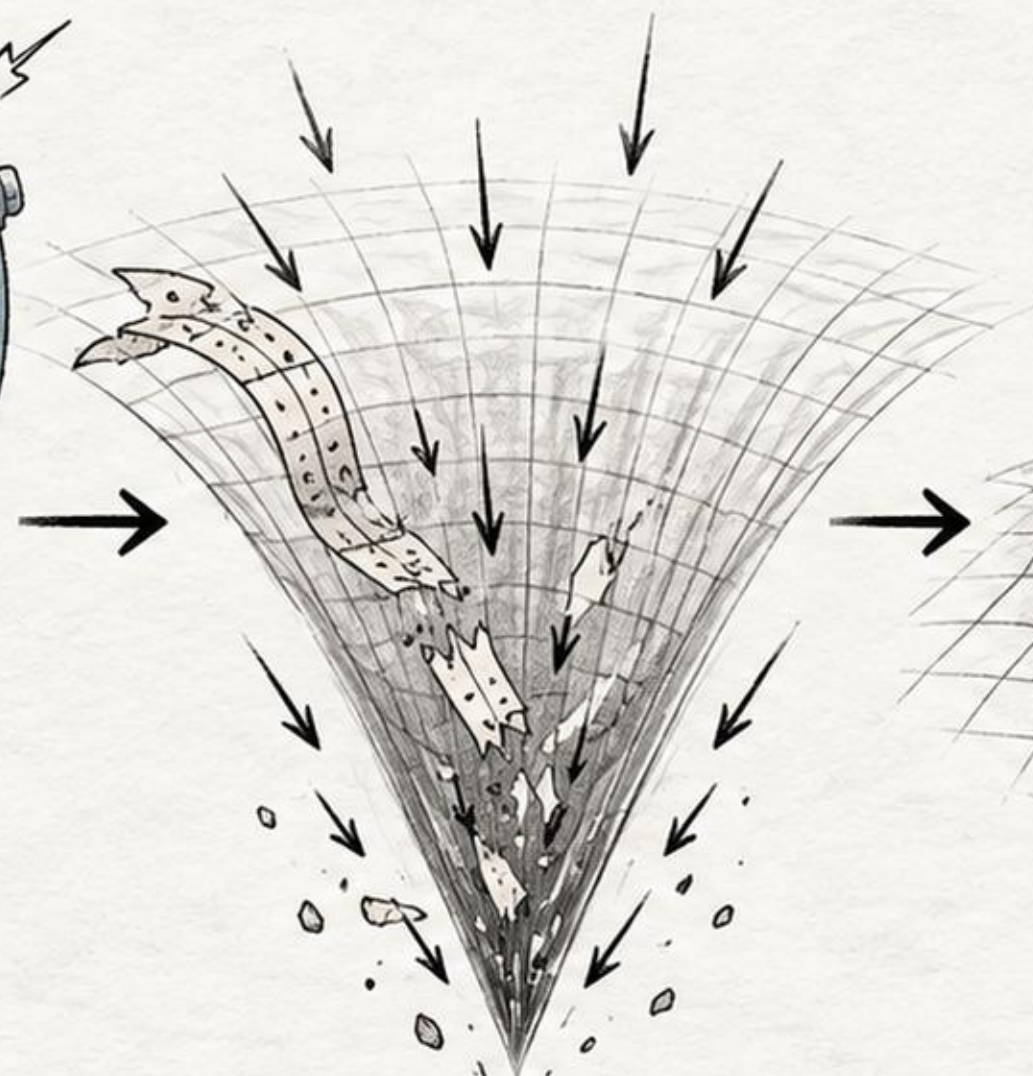


①

时空受不了

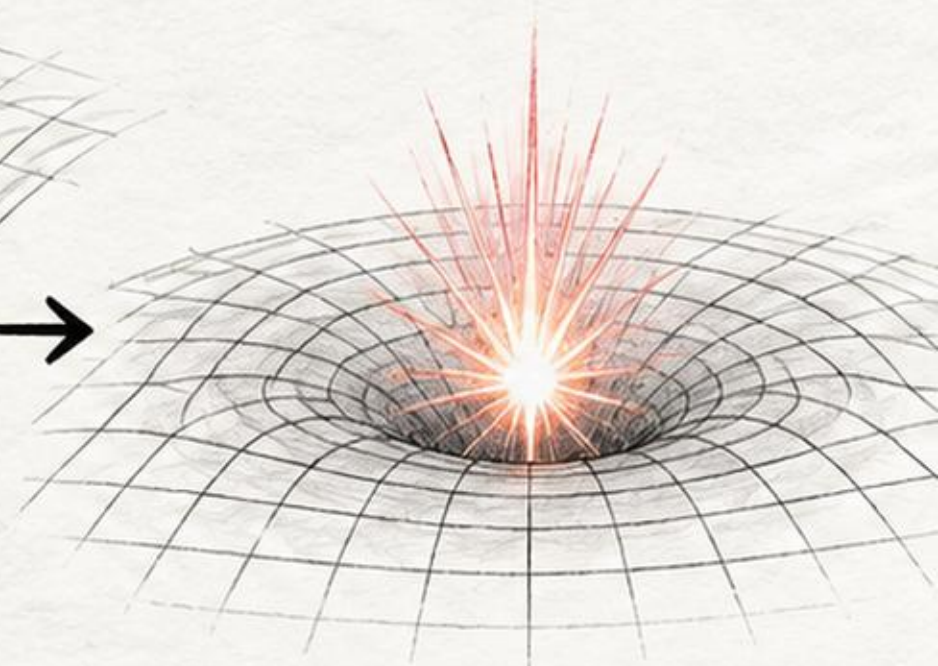


②



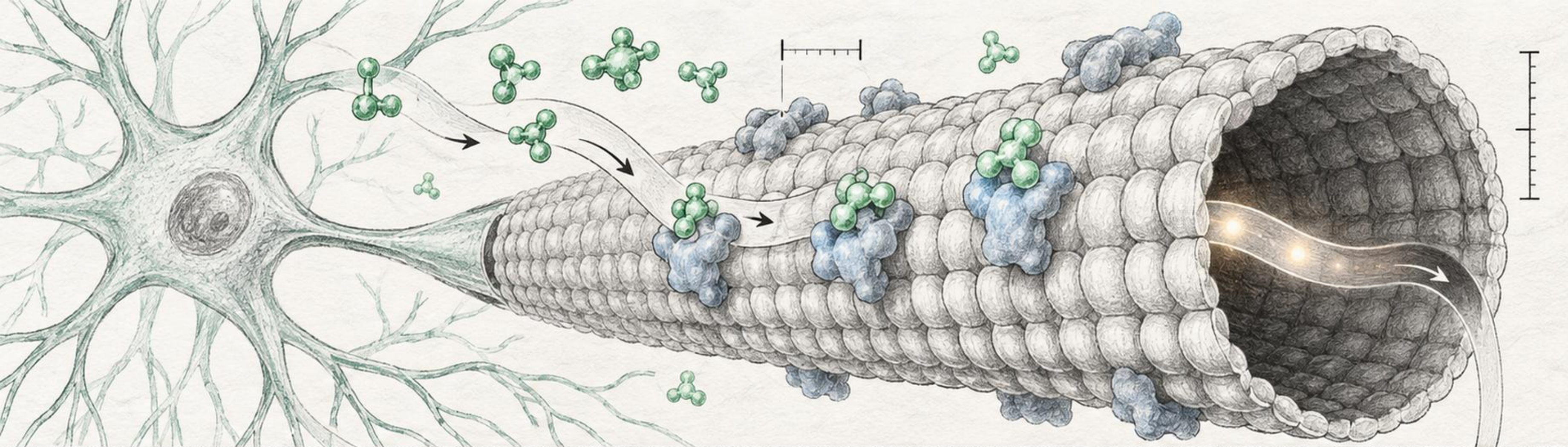
③

自发坍缩

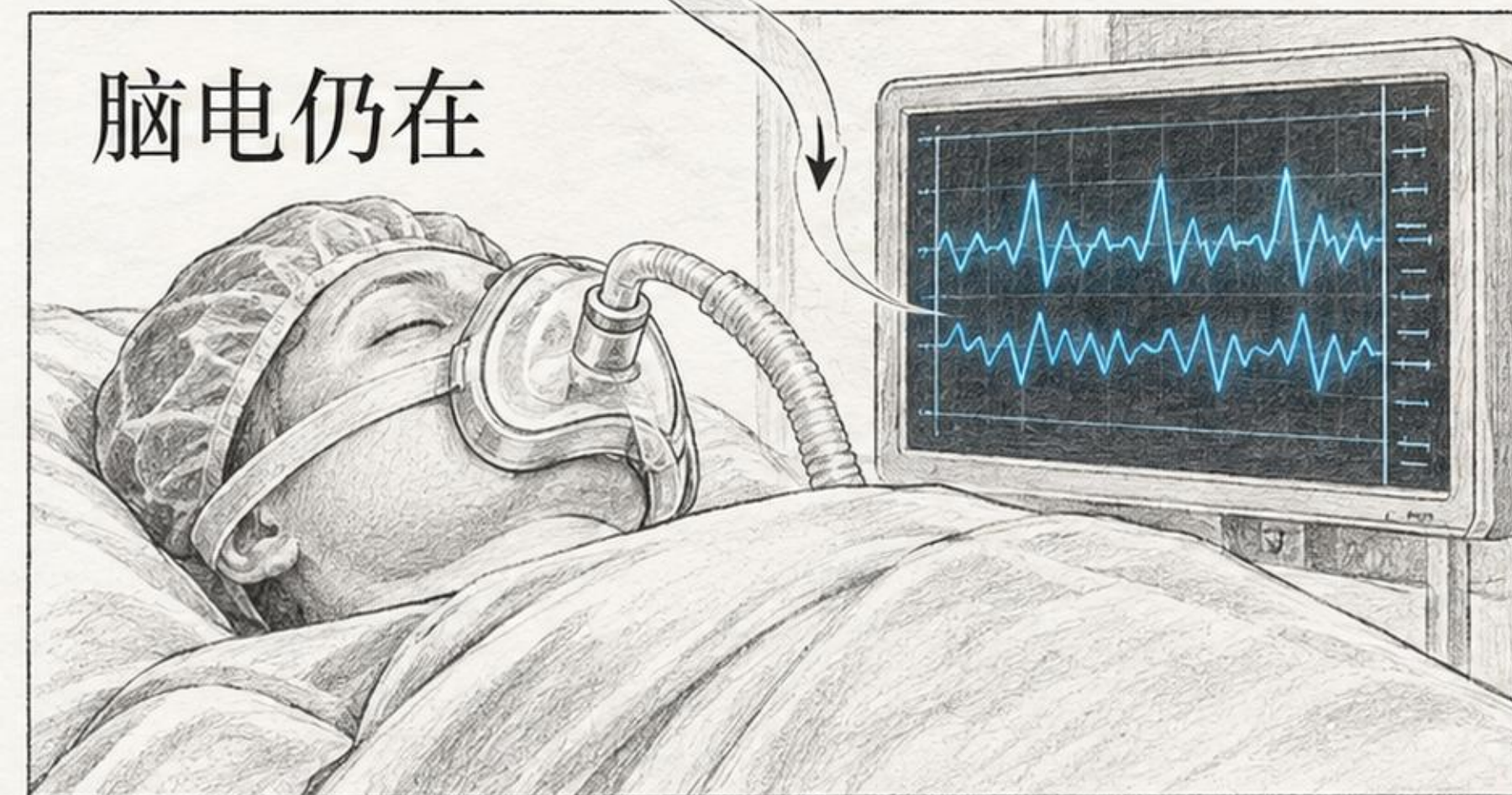


④

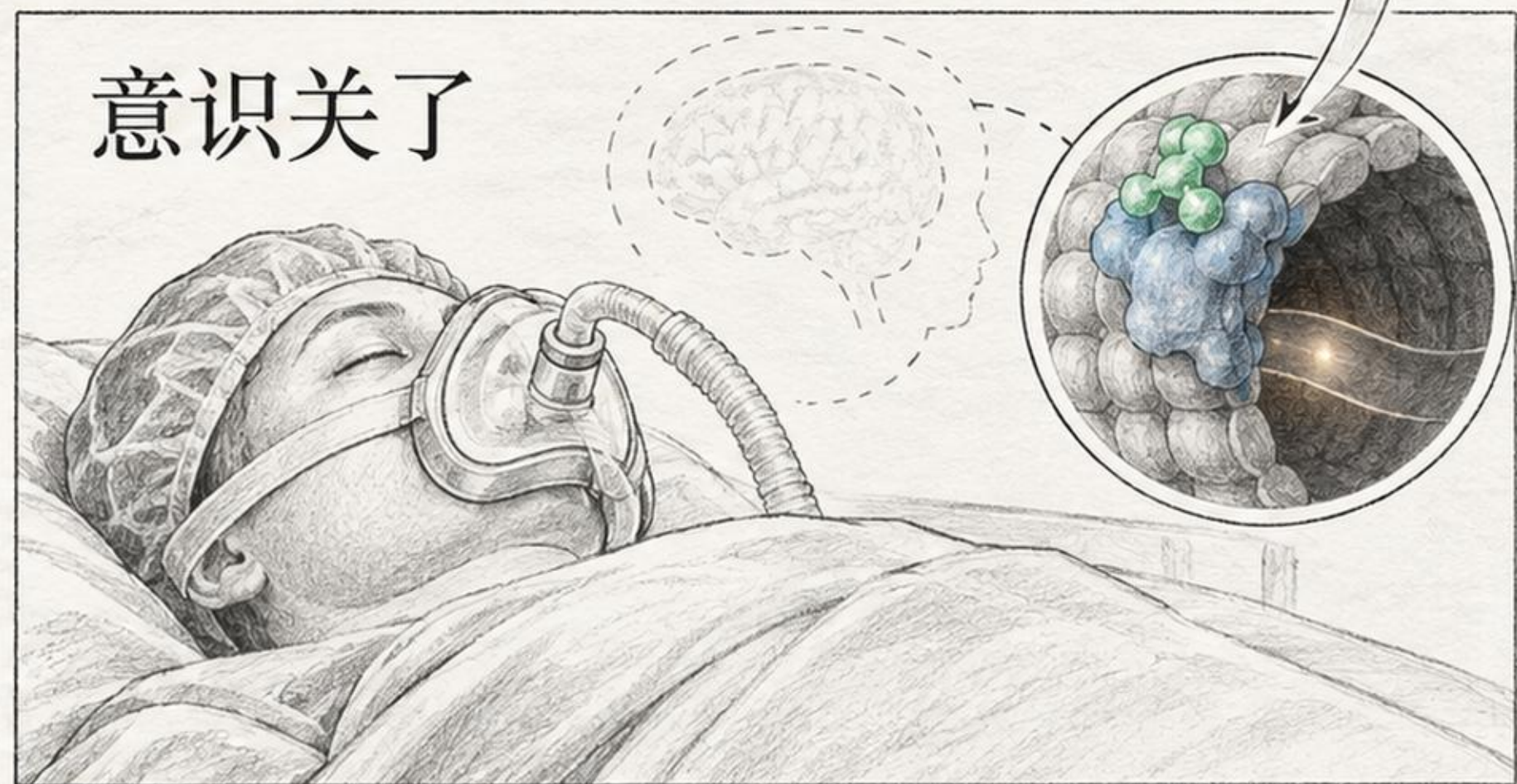
意识闪现

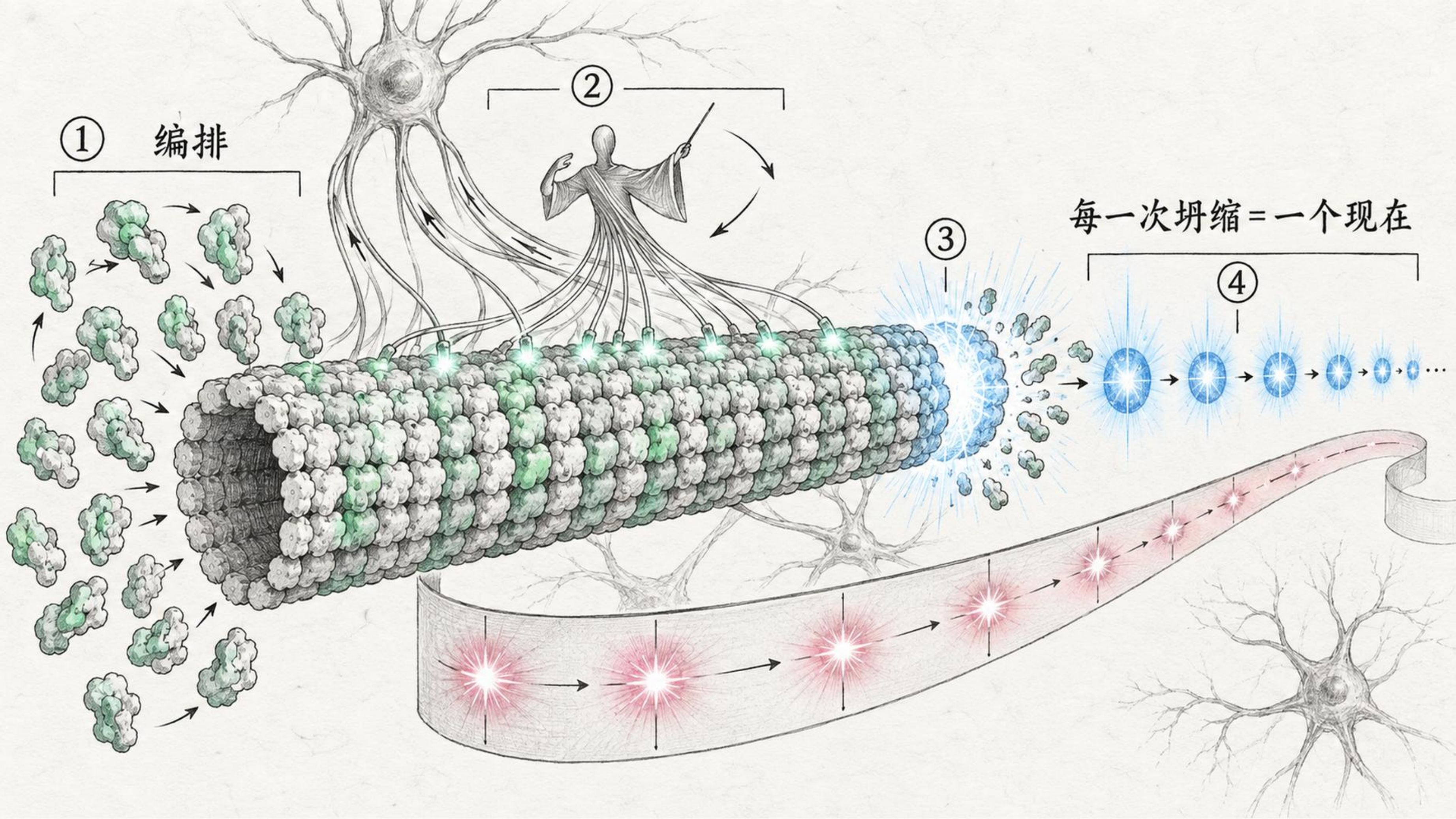


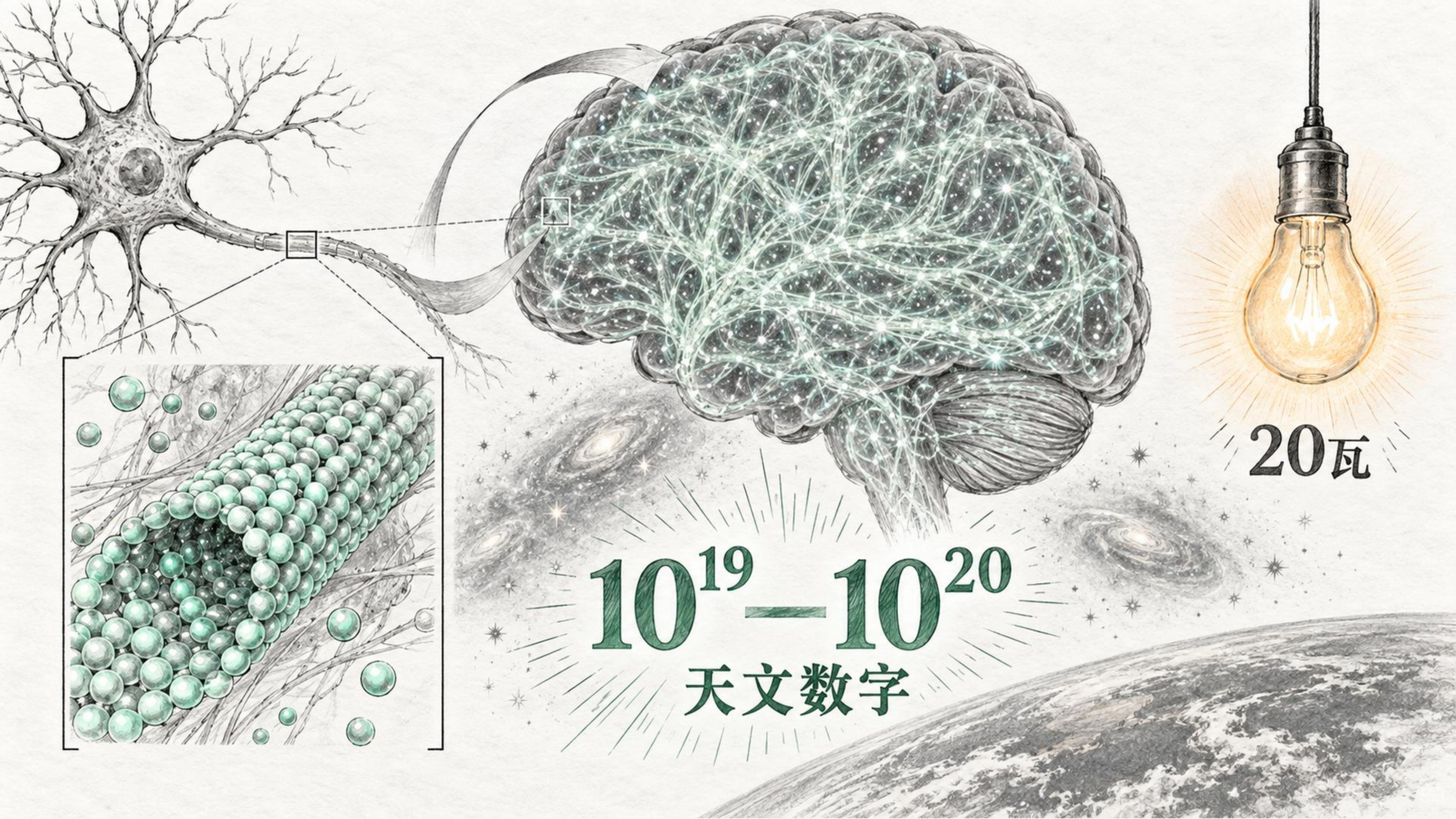
脑电仍在



意识关了





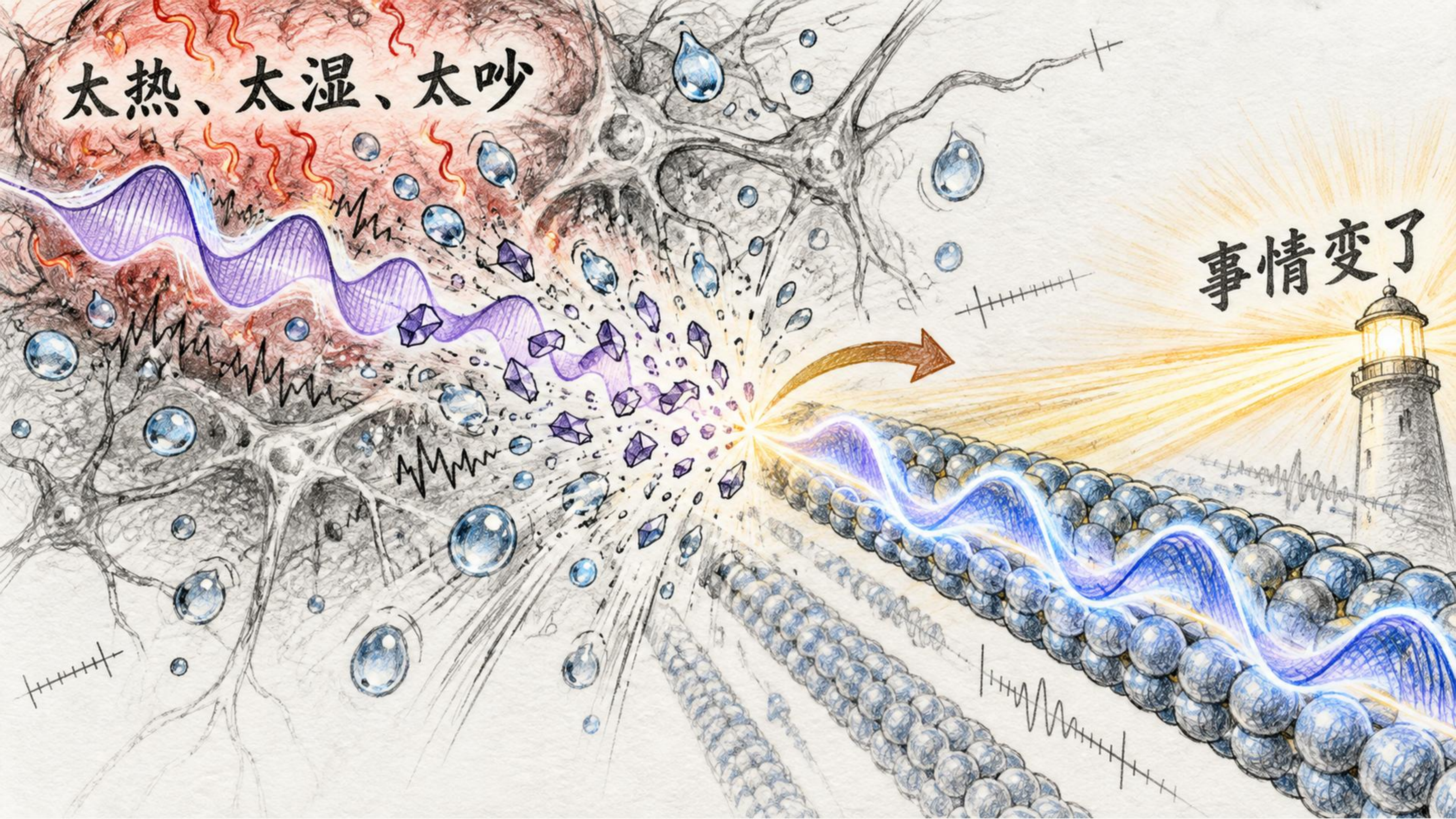


20瓦

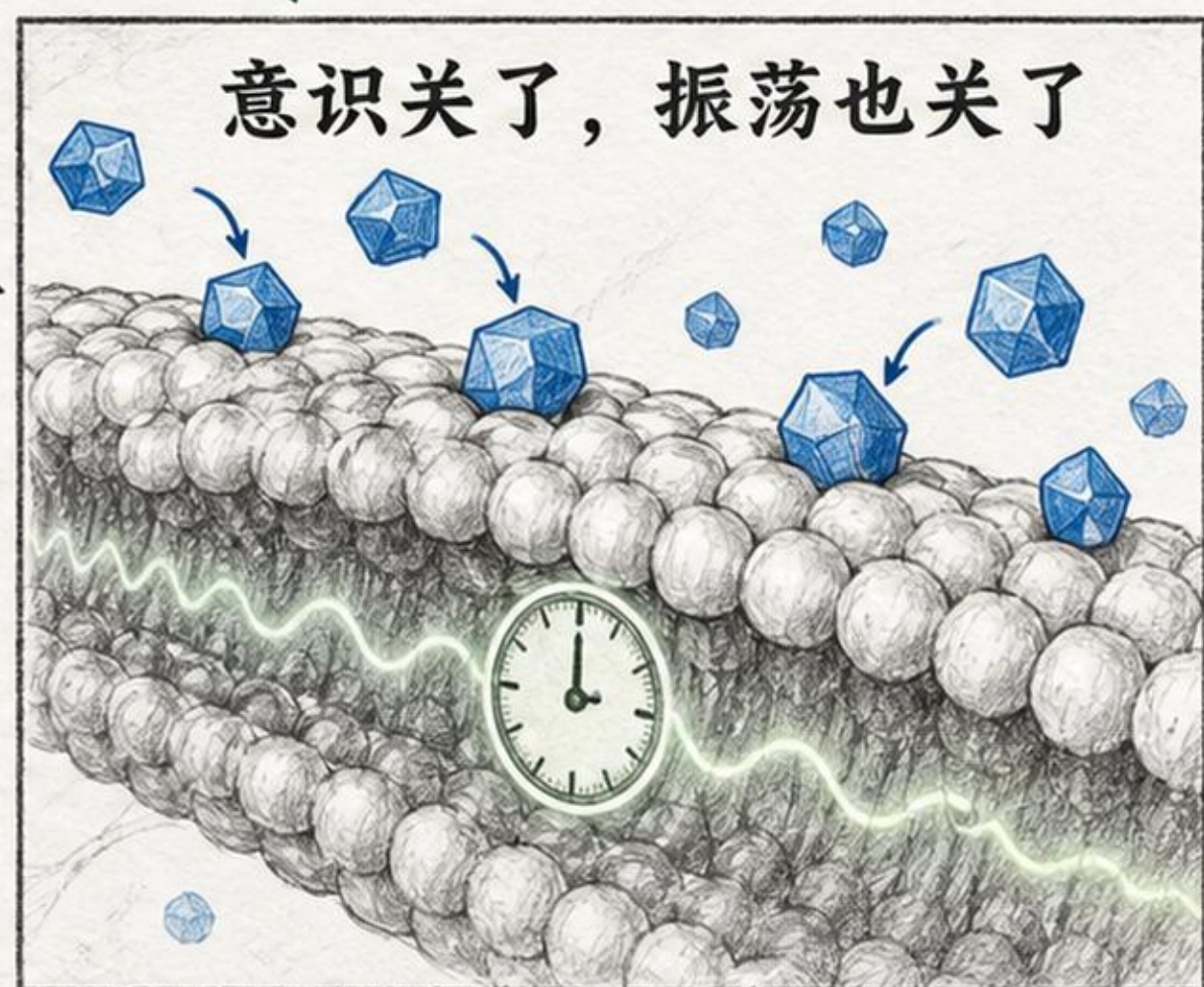
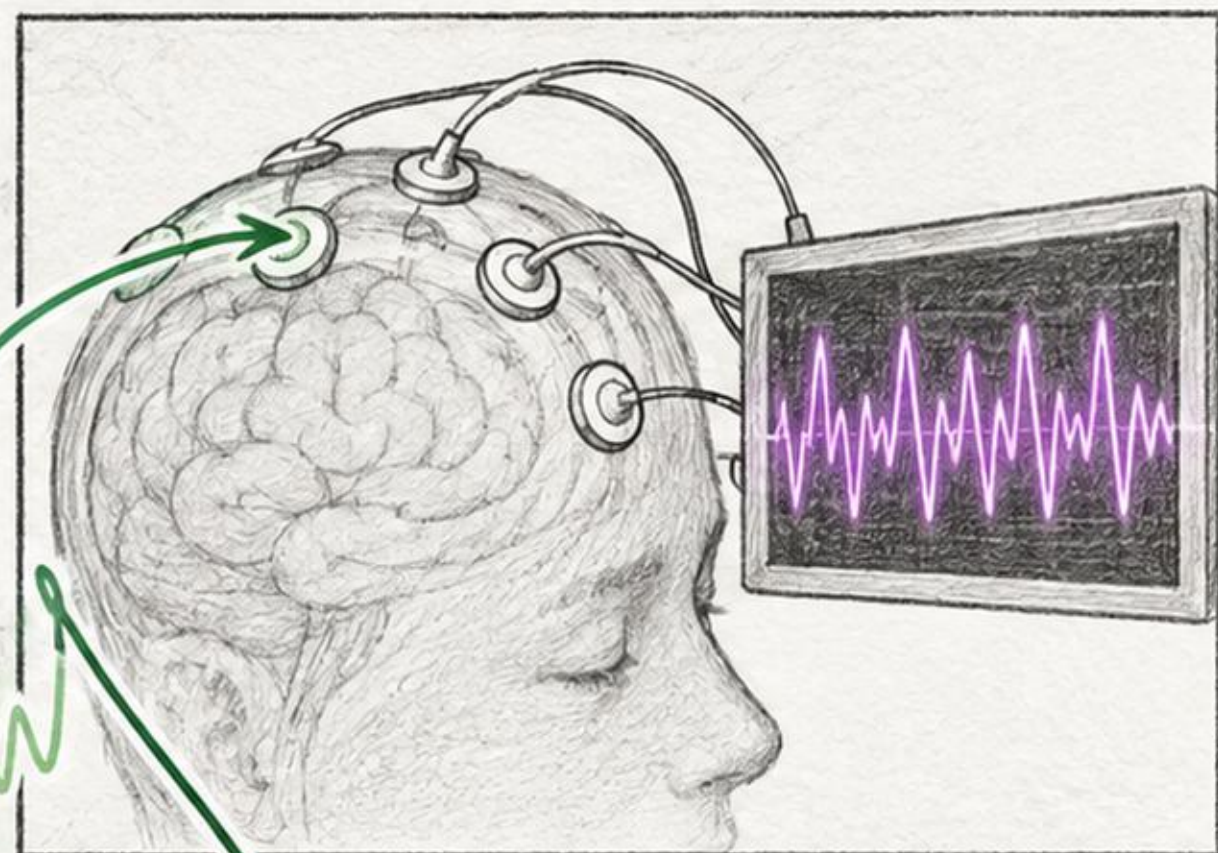
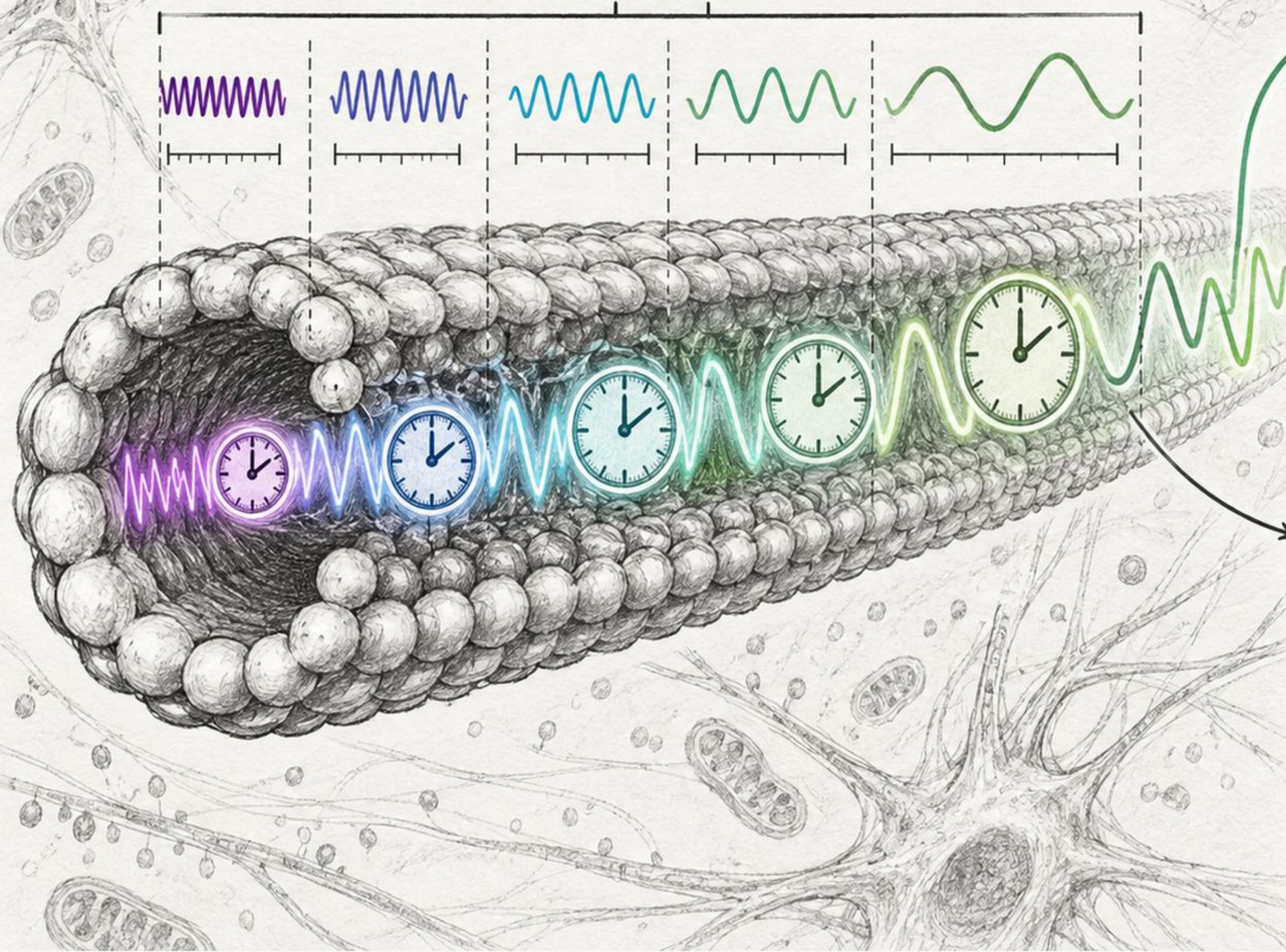
$10^{19} - 10^{20}$
天文数字

太热、太湿、太吵

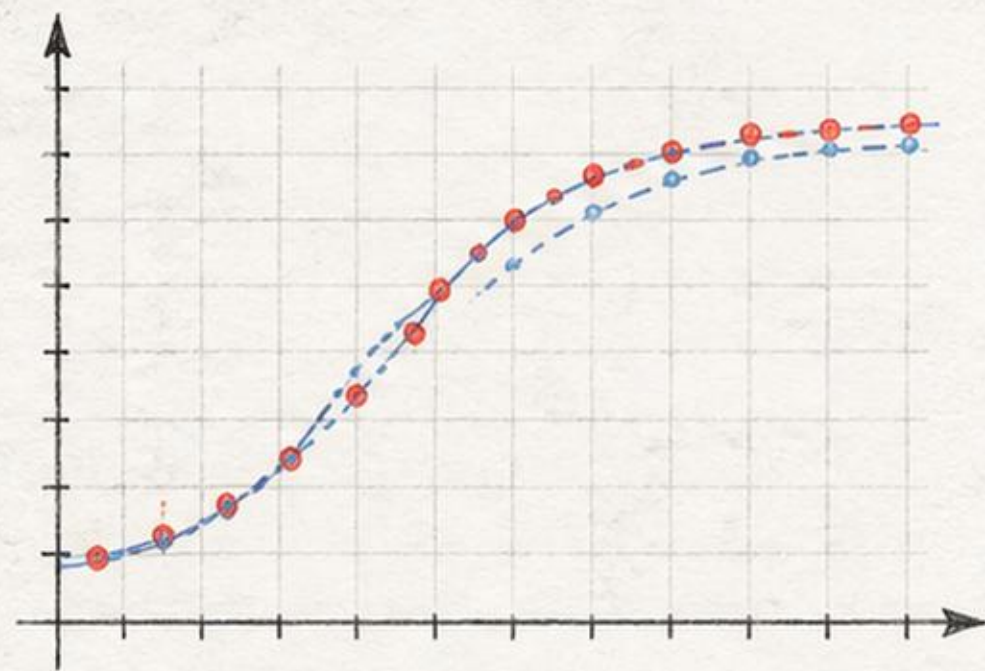
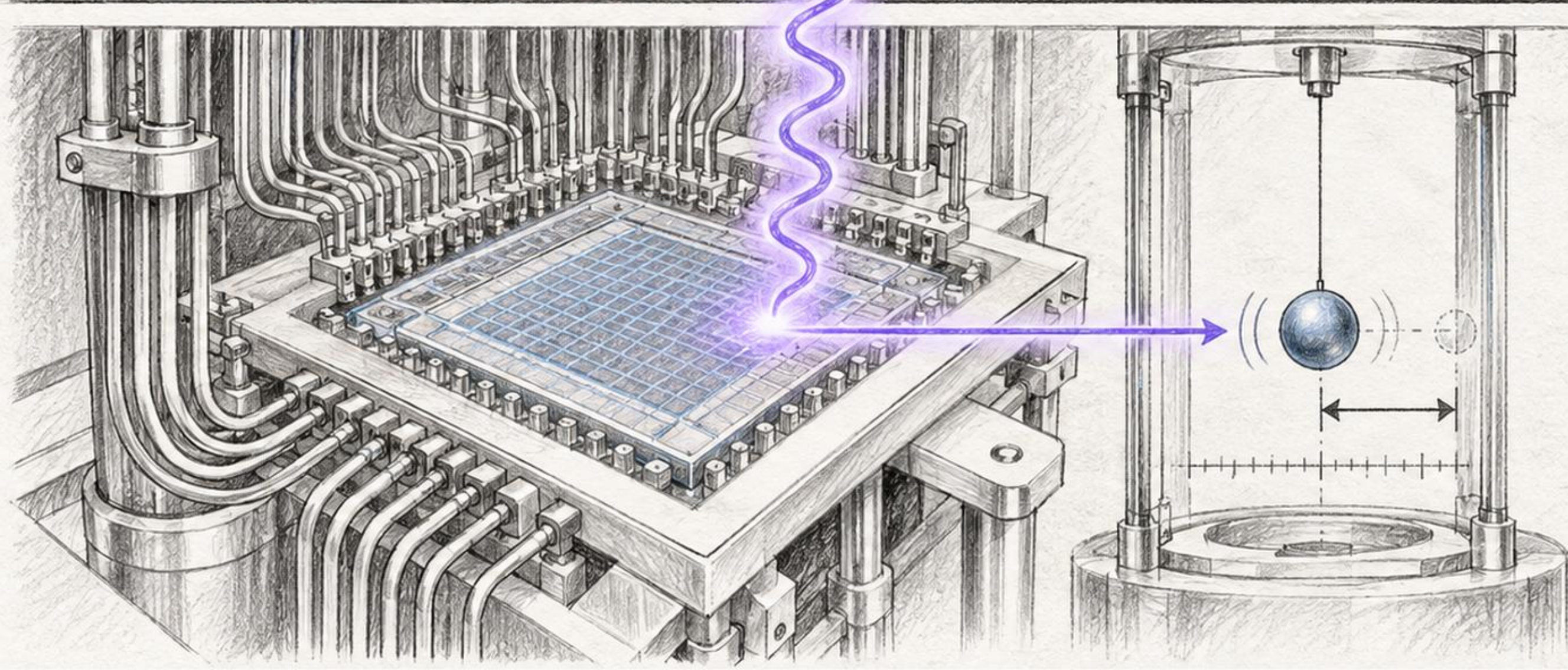
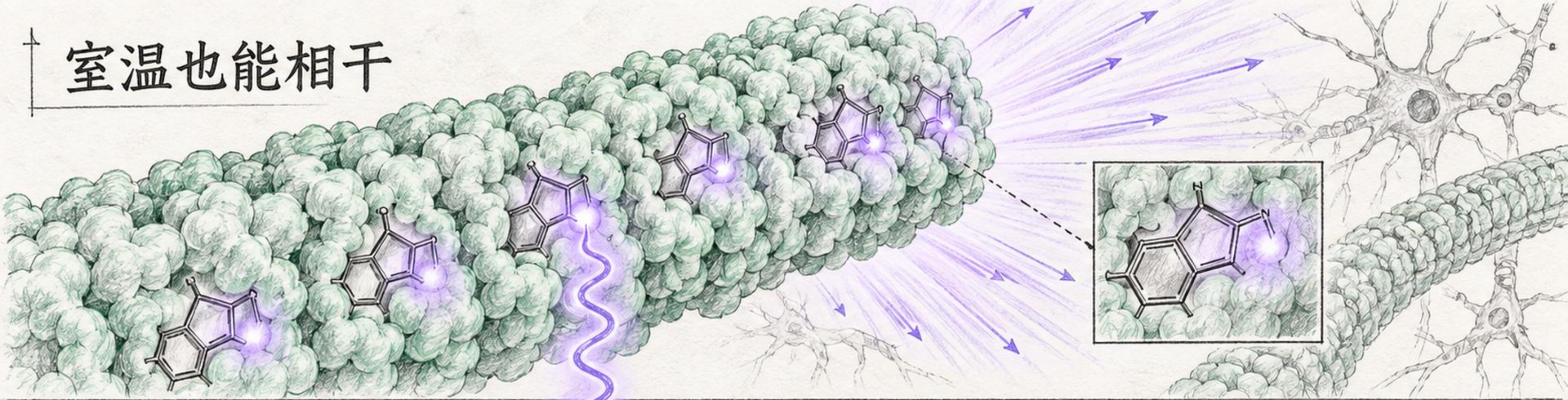
事情变了



五个频段



室温也能相干

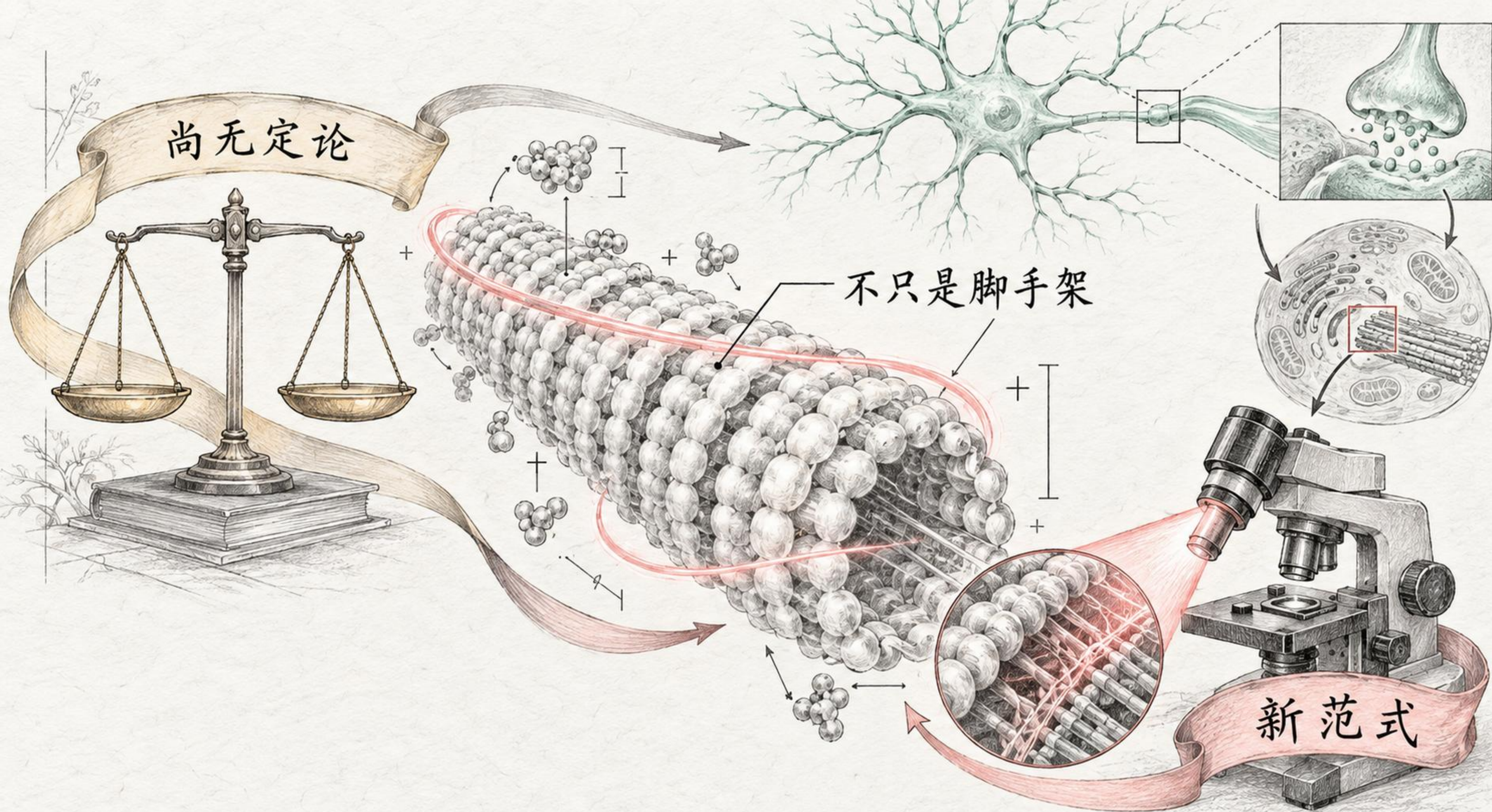


初步一致

尚无定论

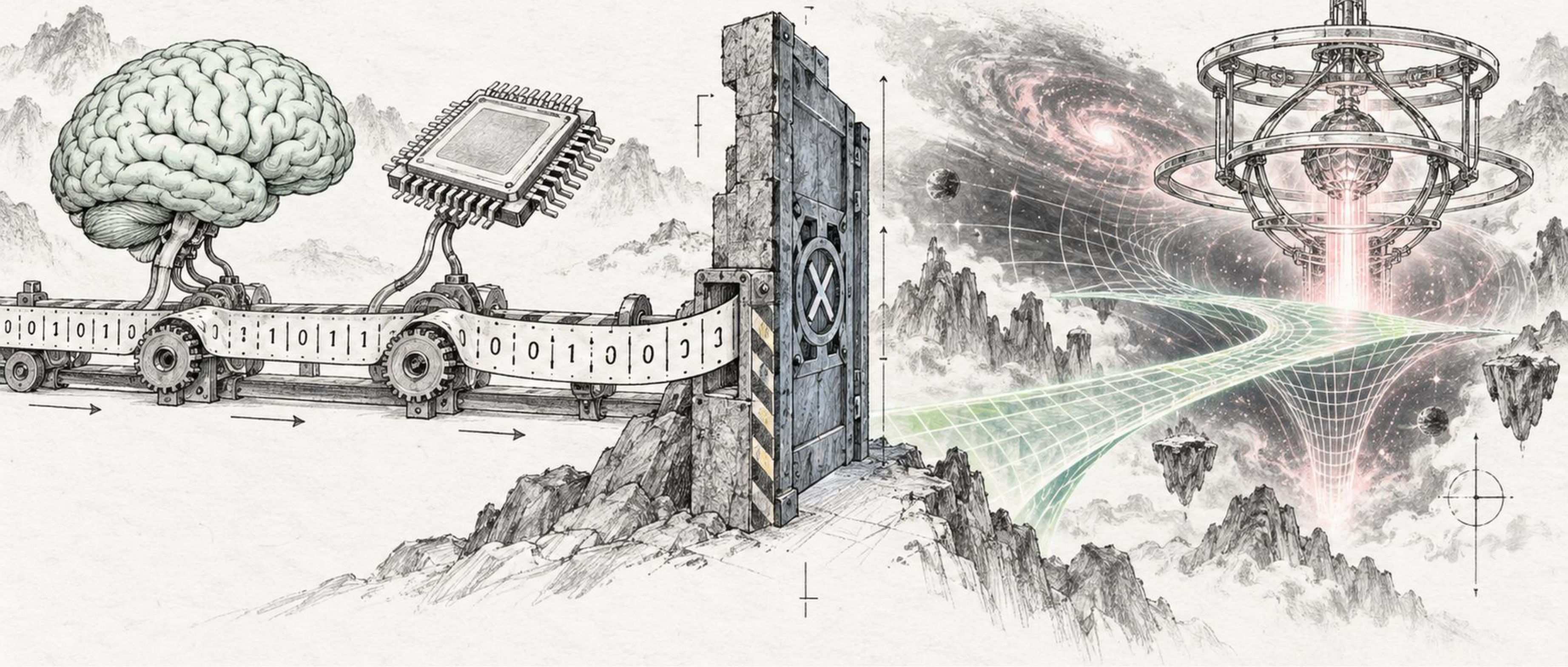
不只是脚手架

新范式



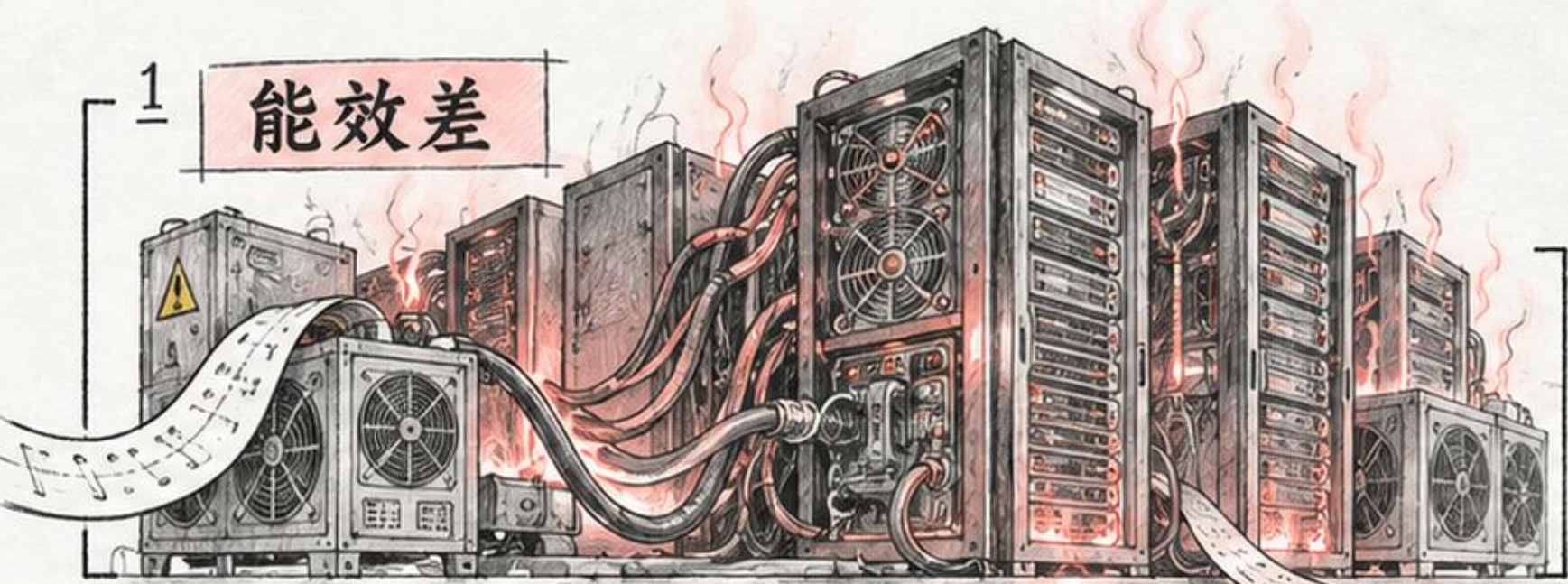
不是碳与硅

而是计算与理解



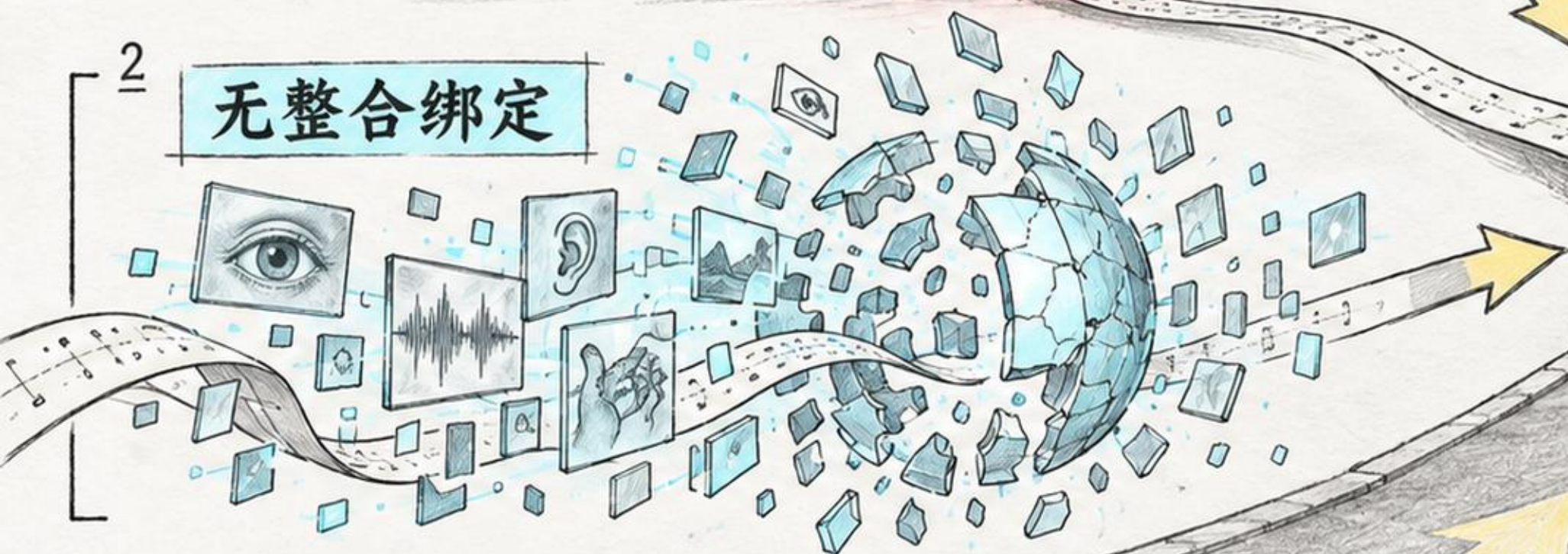
1

能效差



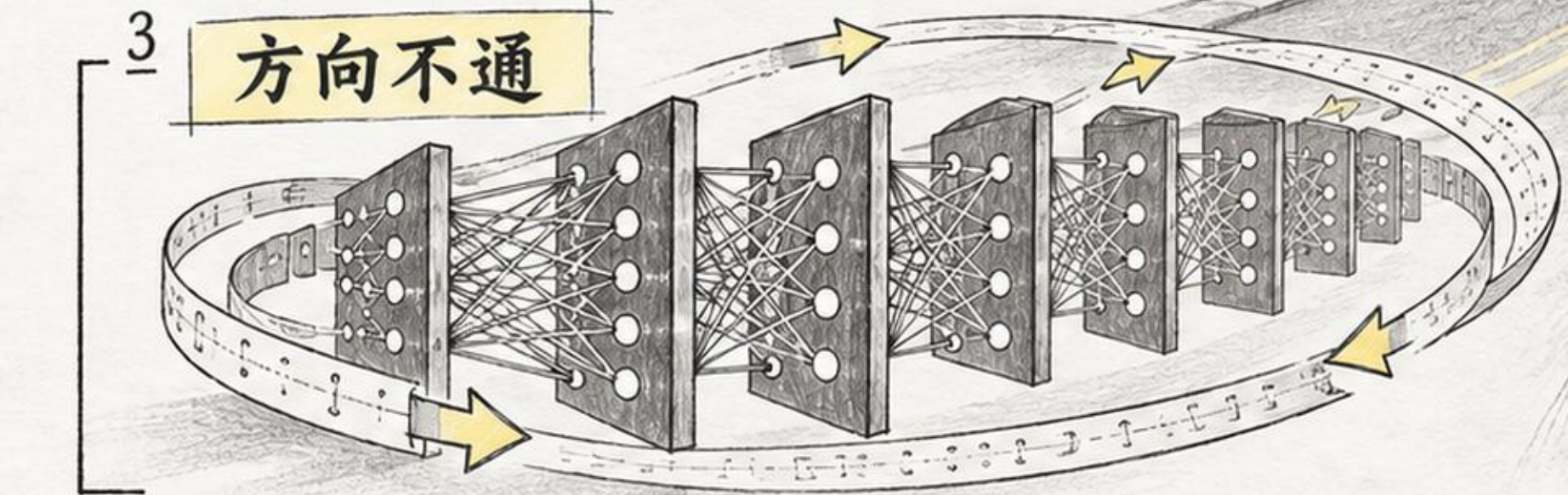
2

无整合绑定

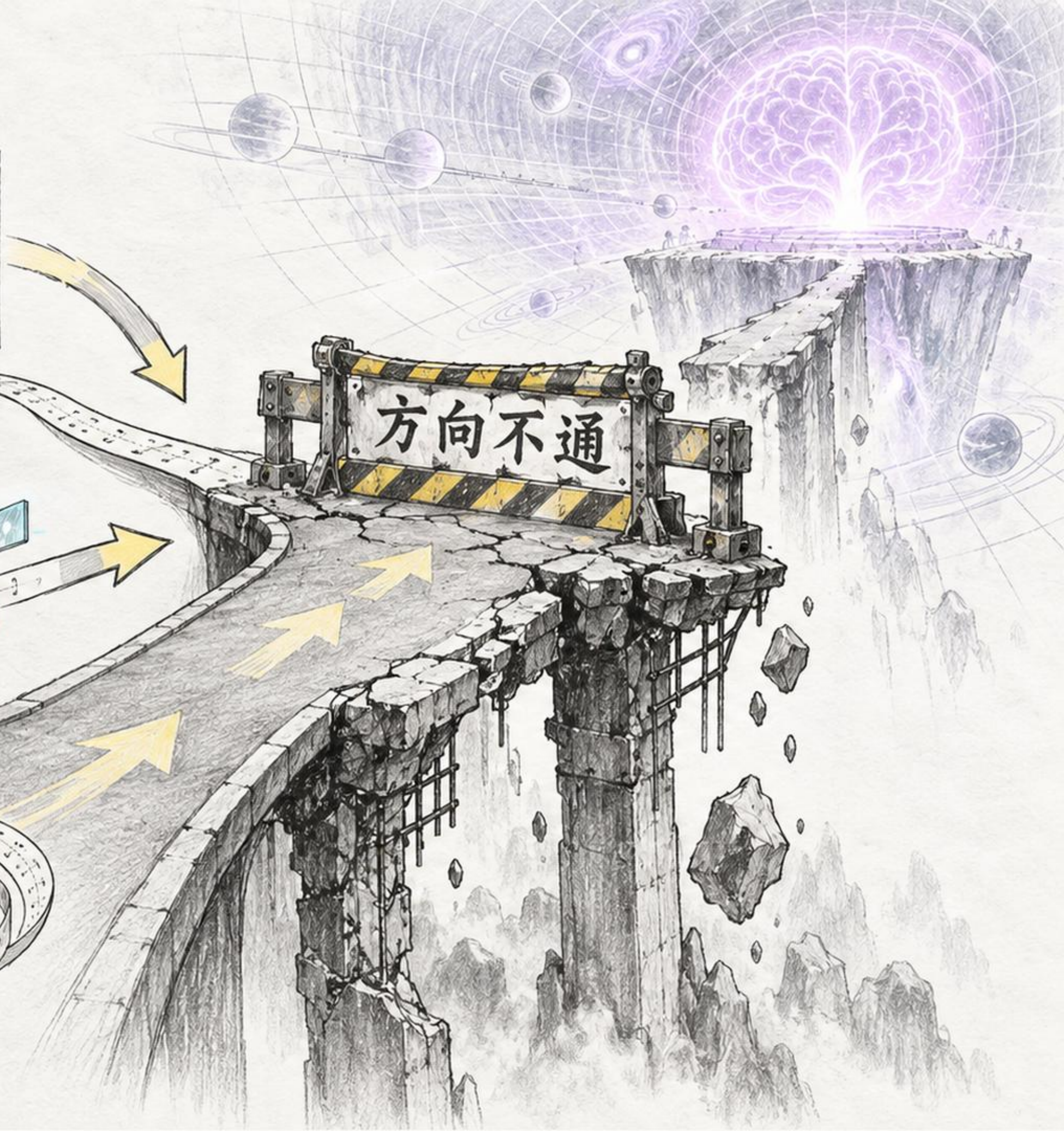


3

方向不通

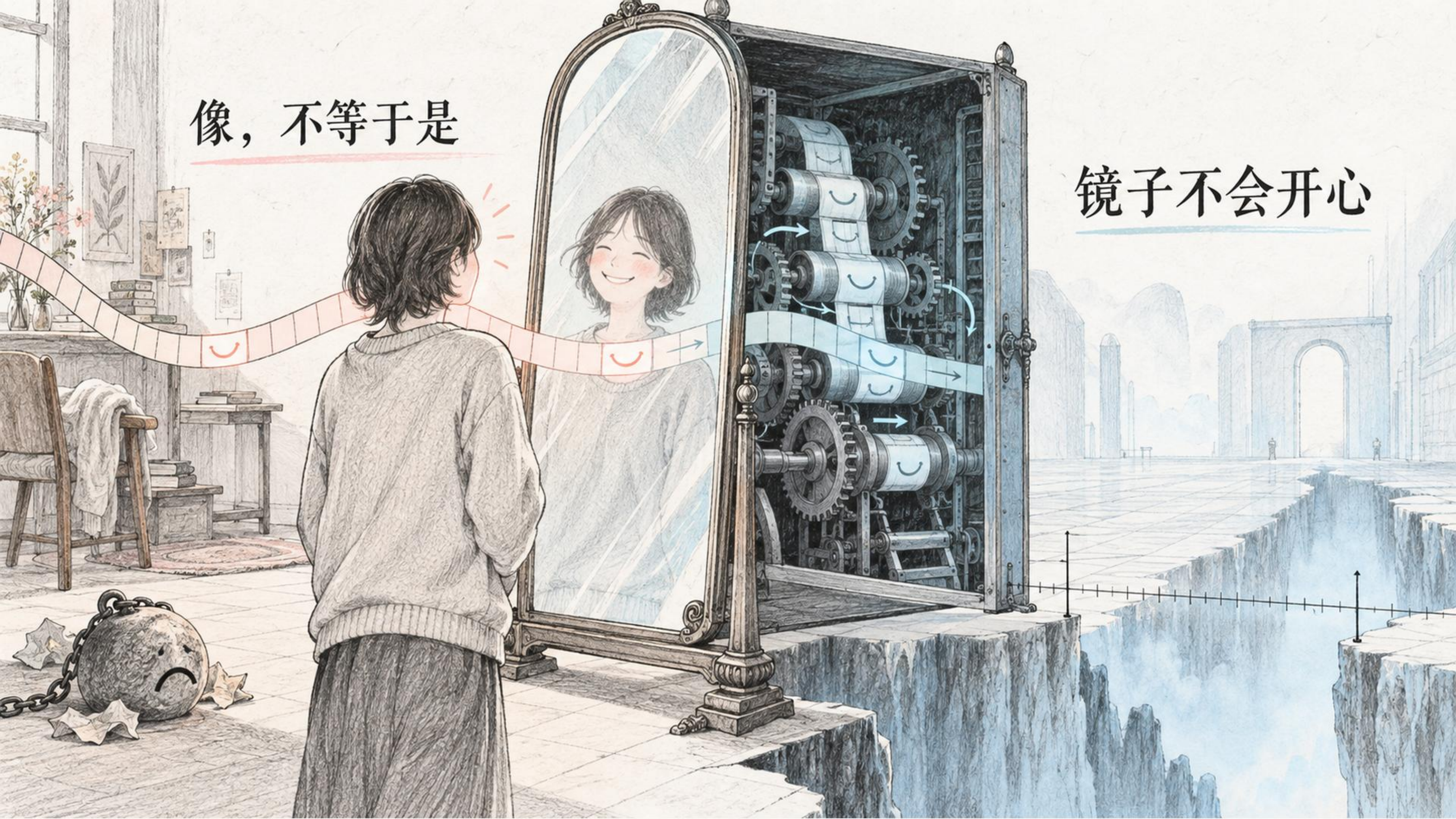


方向不通



像，不等于

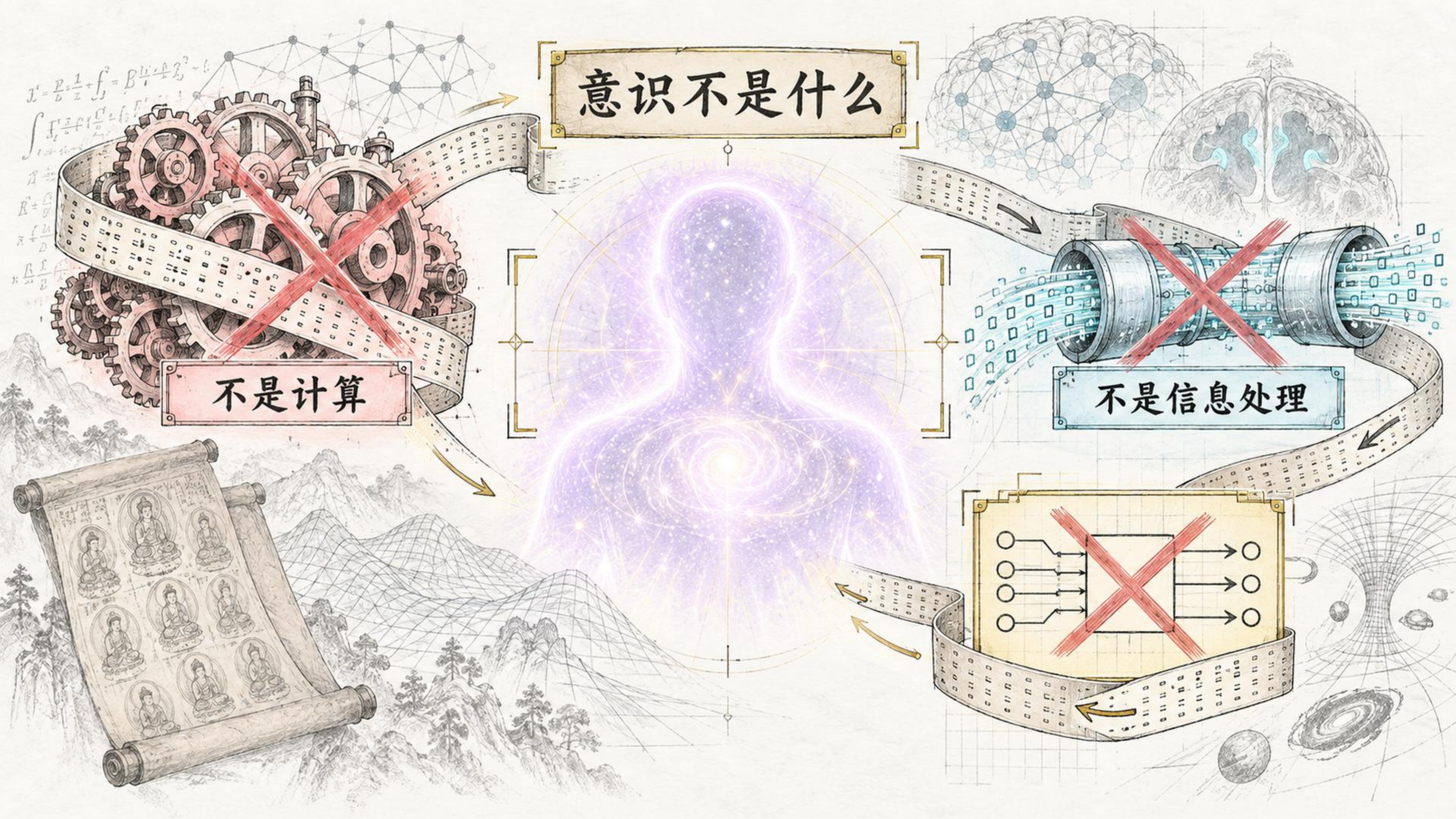
镜子不会开心

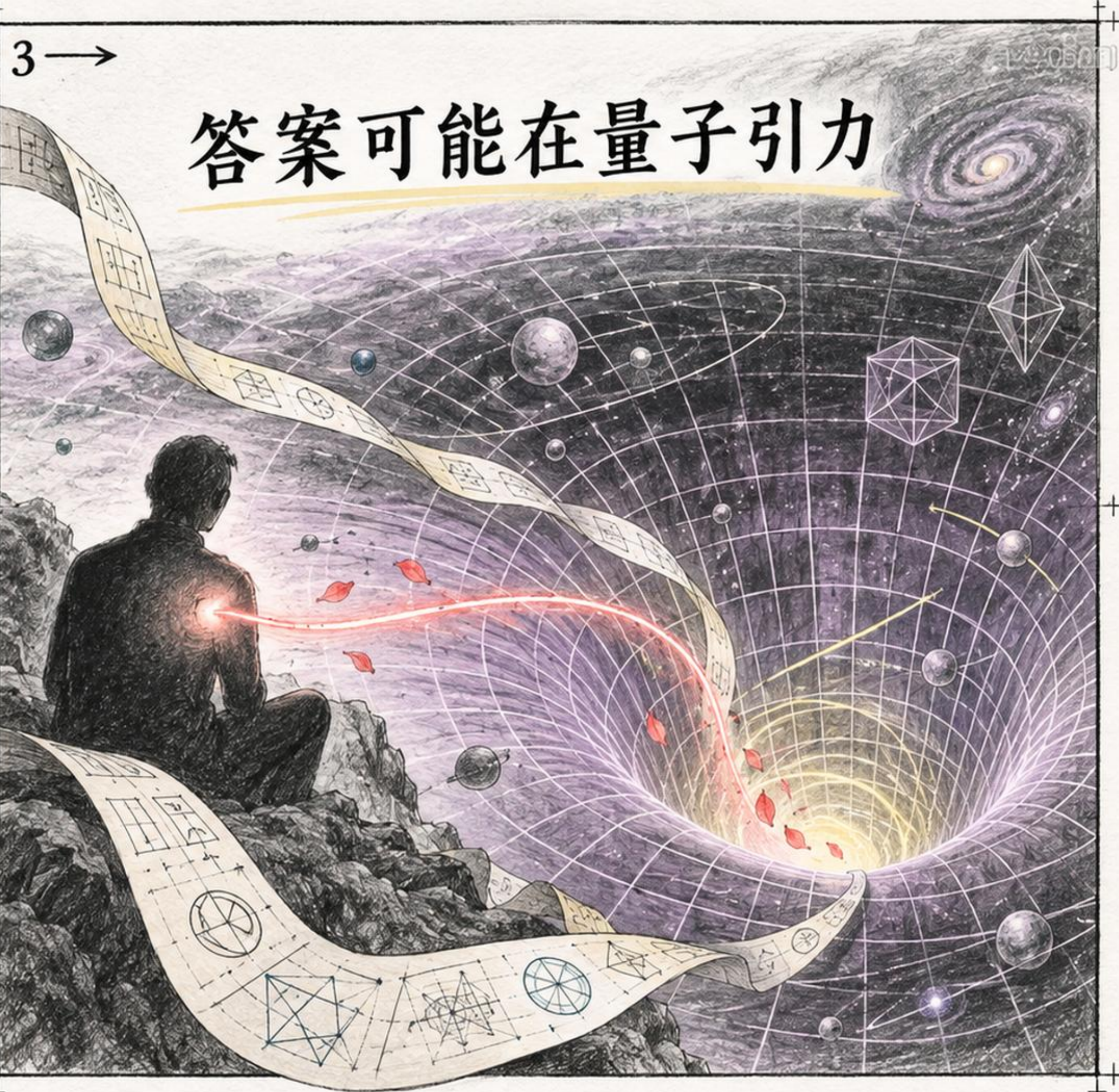
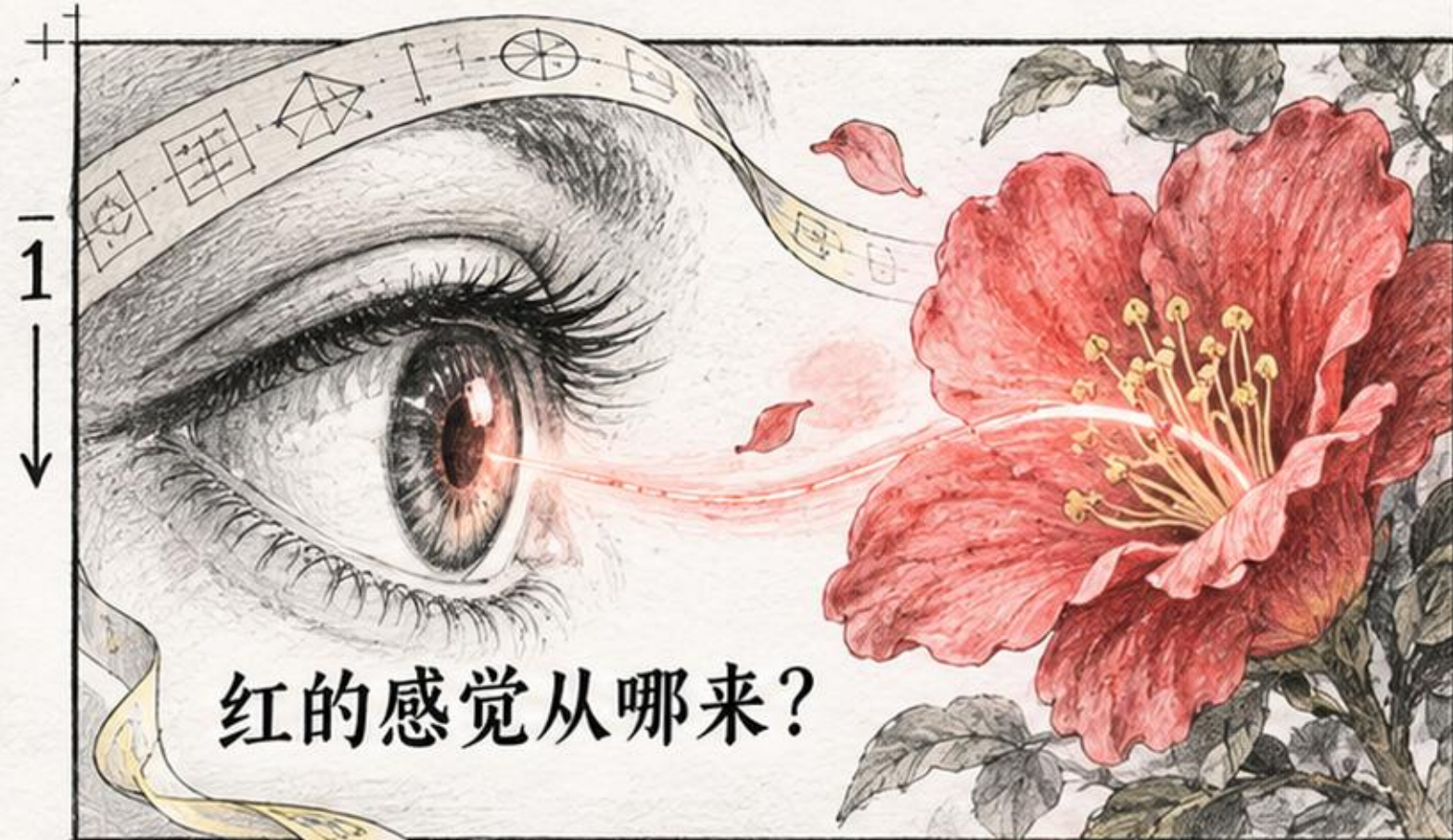


意识不是什么

不是计算

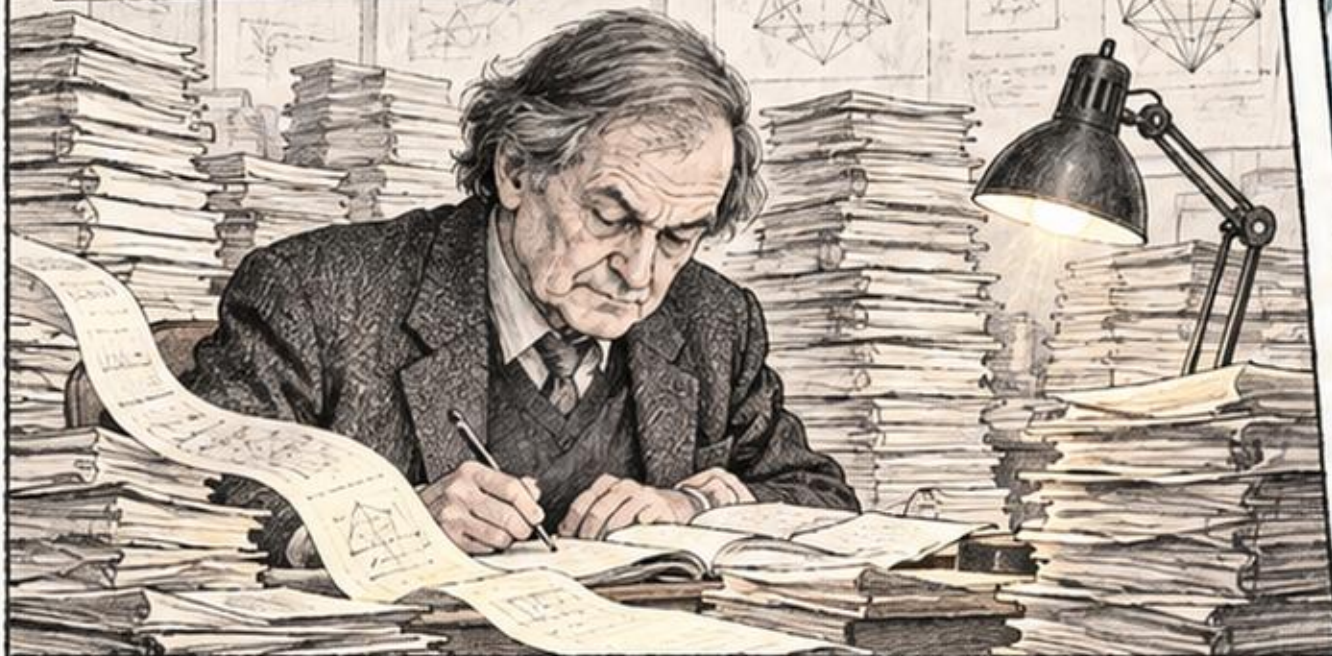
不是信息处理





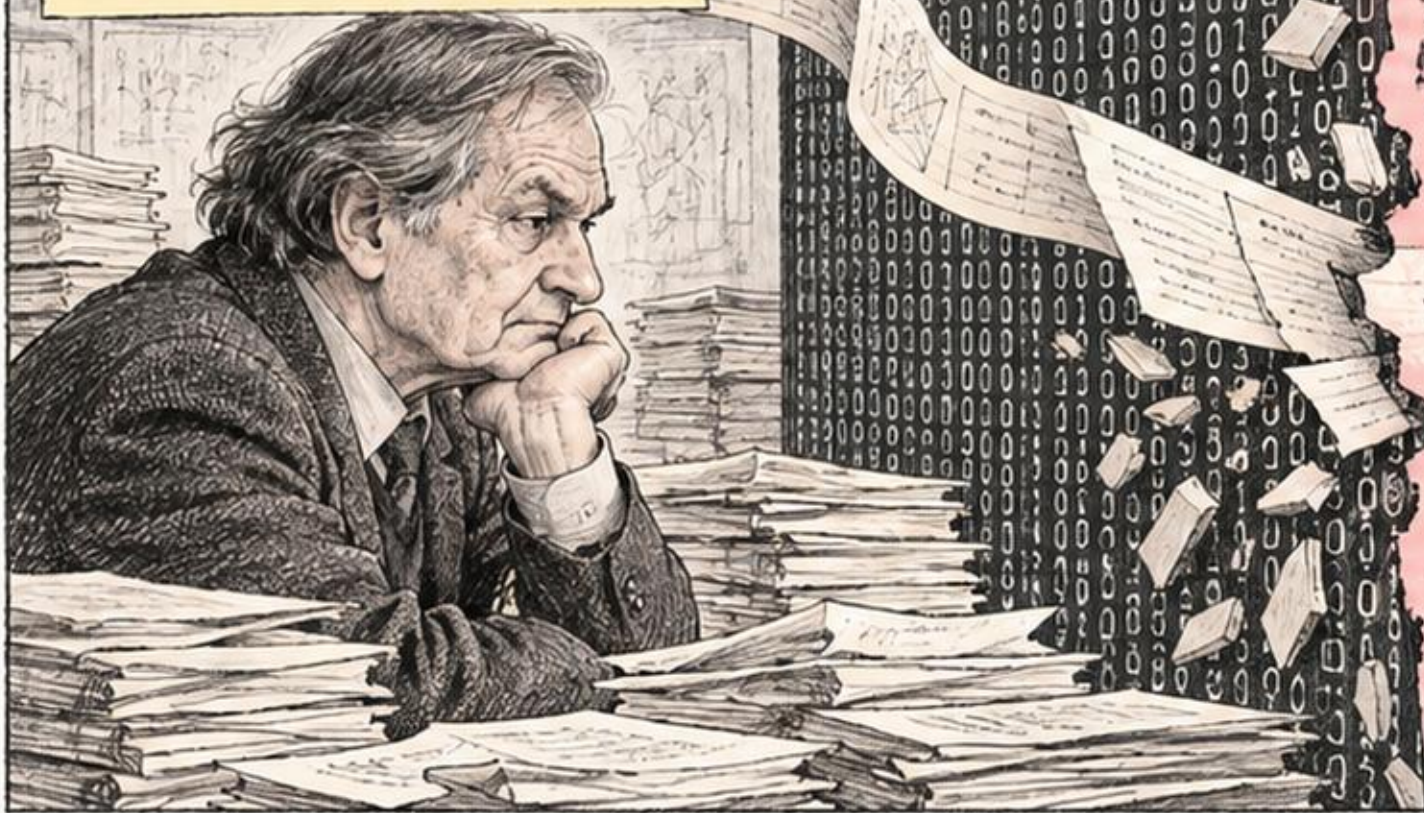
1970 1980 1990 2000

找错地方了

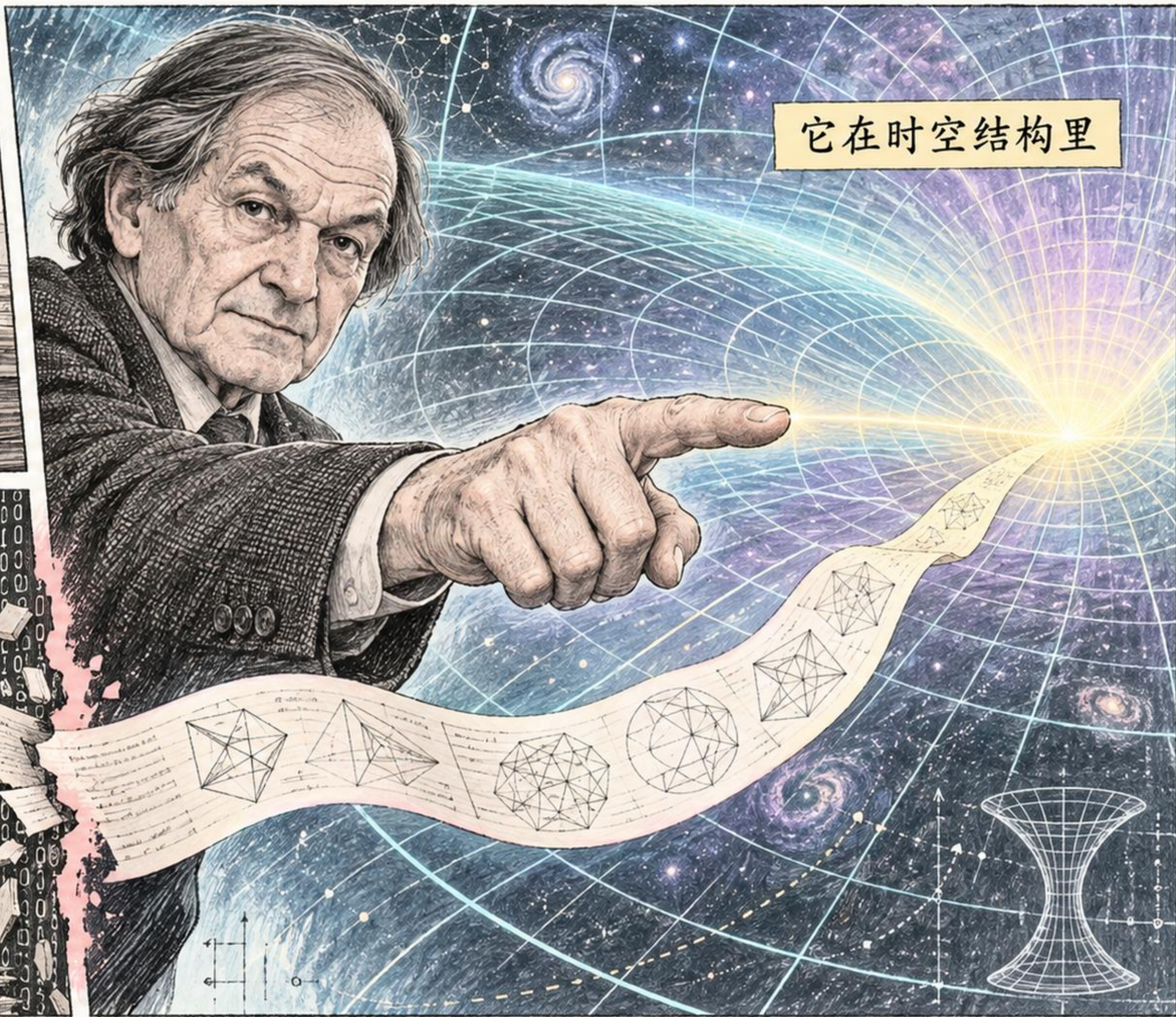


2010 2020

意识不在代码里



它在时空结构里



物理学最难的问题





AI真的懂吗?

评论区告诉我