Natural science: This passage is adapted from the essay "Were Dinosaur Dumb?" by Stephan Jay Gould	自然科学： "恐龙愚蠢么？"
The discovery of dinosaurs in the nineteenth century provided, or so it appeared, a quintessential case for the negative correlation of size and smarts. With their pea brains and giant bodies, dinosaurs became a symbol of lumbering stupidity. Their extinction seemed only to confirm their flawed design. Dinosaurs were not even granted the usual solace of a giant-great physical prowess....Dinosaurs...have usually been reconstructed as slow and clumsy. In the standard illustration, Brontosaurus wades in a murky pond because he cannot hold up his own weight on land... Dinosaurs have been making a strong comeback of late, in this age of "I'm OK, You're OK." Most paleontologists are now willing to view them as energetic, active, and capable animals. The Brontosaurus that wallowed in its pond a generation ago is now running on land, while pairs of males have been seen twining their necks about each	十九世纪恐龙的发现提供了，或是似乎提供了，一个典型的大小与智慧负相关的案例。恐龙豌豆般的大脑和巨大的身体使它们变成蠢笨的象征。它们的灭绝似乎只证实了它们的设计是有缺陷的。 恐龙甚至没有被赋予大型动物的特点---巨大的身体力量。重建后的恐龙往往通常展现出缓慢和笨拙。在标准插图中，雷龙在浑浊的池塘蹚行，因为它在陆地上支撑不了自己的体重。 在这个"我很好，你也不错"的时代，恐龙已经强势回归。大多数古生物学家现在倾向去认为恐龙这种动物富有活力，活跃且有能力。雷龙，上一代还被认为是在泥潭里打滚，现在已经能够在陆地上奔跑，而雄性恐龙被观测到，为争夺配偶它们脖子互相缠绕在战斗（就像长颈鹿用脖子摔跤）。现代解剖学重建显示恐龙具备力量和敏捷性，许多古生物学家现在认为恐龙是温血动物...

other in elaborate sexual combat for access to females (much like the neck wrestling of giraffes). Modern anatomical reconstructions indicate strength and agility, and many paleontologists now believe that dinosaurs were warmblooded ...	恐龙是温血动物这一观点已经抓住了公众的注意力，并受到大量新闻报道。但恐龙能力的另一个证明却鲜少有人注意，尽管我认为它同样重要。我指的愚蠢与大小之间的关系问题。我支持修正主义者的解释，该解释不将恐龙作为智慧的典范，但坚持认为它们的大脑并不小。它们的大脑对爬行动物的体型来说是正好的。
The idea of warmblooded dinosaurs has captured the public imagination and received a torrent of press coverage. Yet another vindication of dinosaurian capability has received very little attention, although I regard it as equally significant. I refer to the issue of stupidity and its correlation with size. The revisionist interpretation, which I support , ... does not enshrine dinosaurs as paragons of intellect, but it does maintain that they were not small brained after all. They had the "right-sized" brains for reptiles of their body size.	
I don't wish to deny that the flattened, minuscule head of large-bodied Stegosaurus houses little brain from our subjective, top-heavy perspective, but I do wish to assert that we should not expect more of the beast. First of all, large animals have relatively smaller brains than related, small animals. The correlation of brain size with body size among kindred animals (all reptiles, all mammals for example) is remarkably regular.	我不否认从我们主观、头重脚轻的角度看，体型巨大的剑龙又平又小的头部的脑容量很小，但我确实希望我们不应对野兽期望太多。首先，跟体型小的同类动物相比，大型动物的大脑相对较小。同类动物（比如所有爬行动物、哺乳动物）的脑容量跟体型大小的关系是非常规律的。从小型动物到大型动物，从老鼠到大象或是从小蜥蜴到科莫多龙，动物的脑容量逐渐递增，但速度低于体型增长的速度。换句话说，身体的增长快于脑容量，大型动物的脑容量和身体的比率小。事实上，脑容量增长的速度只有身体的三分之二。既

As we move from small to large animals, from mice to elephants or small lizards to Komodo dragons, brain size increases, but not so fast as body size. In other words, bodies grow faster than brains, and large animals have low ratios of brain weight to body weight. In fact, brains grow only about two-thirds as fast as bodies. Since we have no reason to believe that large animals are consistently stupider than their smaller relatives, we must conclude that large animals require relatively less brain to do as well as smaller animals. If we do not recognize this relationship, we are likely to underestimate the mental power of very large animals, dinosaurs in particular...	然我们没有理由认为大型动物 比体型小的亲戚们更蠢，我们必须得出结论，大型动物需要相对较少的脑容量来完成小型动物可以做到的事情。如果我们不承认这种关系，我们可能低估了大型动物的智力，特别是恐龙…
If behavioral complexity is one consequence of mental power, then we might expect to uncover among dinosaurs some signs of social behavior that demand coordination, cohesiveness and recognition. Indeed we do, and it cannot be accidental that these signs were overlooked when dinosaurs labored under the burden of a falsely imposed obtuseness. Multiple trackways have been uncovered, with evidence for more than twenty animals traveling together in parallel movement. Did some dinosaurs live in herds? At the Davenport Ranch sauropod trackway, small footprints lie in the center and larger ones at the periphery. Could it be that some	如果行为复杂性是智力的一个结果，那么我们可能期望在恐龙身上发现的一些社会行为的迹象，这些社会行为会要求协调性、凝聚力和识别能力。我们确实发现了，当恐龙承受着错误施加在他们身上的愚笨时，这些迹象被忽视肯定不是意外。恐龙的多个足迹已被发现，有证据显示二十只动物在平行运动。某些恐龙是群居动物吗？在达文波特牧场蜥脚类动物古道，较小的脚印位于中心位置，较大的脚印则在边缘。 有没有可能是一些恐龙像现在一些高级食草哺乳动物那样移动，成年动物在周边保护中

dinosaurs traveled much as some advanced herbivorous mammals do today, with large adults at the borders sheltering juveniles in the center? ...	间的幼崽？
But the best illustration of dinosaurian capability may well be the fact most often cited against them-their demise...	但对恐龙能力最好的证明很可能是那个最常被拿来反对它们这一点的事实，即恐龙的灭亡…
The remarkable thing about dinosaurs is not that they became extinct, but that they dominated the earth for so long. Dinosaurs held sway for 100 million years while mammals all the while, lived as small animals in the interstices of their world. After 70 million years on top, we mammals have an excellent track record and good prospects for the future, but we have yet to display the staying power of dinosaurs.	关于恐龙最引人注目的事情并不是说它们的灭绝，而是它们主宰地球之久。恐龙统治了地球 1 亿年，而哺乳动物像小动物一样生活在它们世界的间隙里。位于顶端 7000 万年，我们哺乳动物有好的发展轨迹和未来前景，但我们尚未展现出恐龙的持久力。
People, on this criterion, are scarcely worth mentioning--5 million years perhaps since Australopithecus, a mere 50,000 for our own species, Homo sapiens. Try the ultimate test within our system of values: Do you know anyone who would wager a substantial sum even at favorable odds on the proposition that Homo sapiens will last longer than Brontosaurus?	在此标准下，人是不值一提的--自南方古猿开始是五百万年，从智人开始只有仅仅五万年。在我们的价值观下尝试终极测试：即使是在有利的情况下，谁会出一大笔钱赌智人会比雷龙持续时间更久？