

Part. 1 Sentence Translation

Unit 1 Psychology (P2-5)

1. Even my most private and personal reflections are entangled with the perspectives and voices of different people, be it those who agree with me, those who criticise, or those who praise me. (Para. 2)
即使是最私密、最个人的思绪，也与不同人的观点和声音纠缠在一起，无论是那些赞同我的人，还是那些批评我的人，抑或是那些赞美我的人。
2. The 17th-century French philosopher believed that a human being was essentially self-contained and self-sufficient; an inherently rational, mind-bound subject, who ought to encounter the world outside her head with skepticism. (Para. 3)
这位 17 世纪的法国哲学家认为，人类本质上是自给自足的；生而理性、受其思想约束的个体，应该以怀疑的态度面对他头脑之外的世界。
3. He wanted to find a stable point of view from which to look on the world without relying on God-decreed wisdoms; a place from which he could discern the permanent structures beneath the changeable phenomena of nature. But Descartes believed that there was a trade-off between certainty and a kind of social, worldly richness. (Para. 4)
他想要找到一种稳定的观点，而非上帝赐予的智慧，来观察这个世界；由此，他可以透过自然界中变幻莫测的现象分辨出永久性的结构。但笛卡尔认为，稳定性和来自社会的、世俗的多样性之间存在权衡关系。
4. But even then, the investigation often presumes that a collective of Cartesian subjects are the real focus of the enquiry, not selves that co-evolve with others over time. (Para. 6)
但即便如此，调查也常常假设，探究的真正焦点是笛卡尔式议题的集合，而非随时间推移与他人共同进化的自我。
5. Genovese's murder had to be seen against a backdrop in which violence against women was not taken seriously, Cherry said, and in which people were reluctant to step into what might have been a domestic dispute. (Para. 7)
彻利认为，凯迪·吉诺维斯谋杀案反映了当时的社会并不关注女性遭受的暴力困扰，人们也不愿介入一桩可能是家庭纠纷的暴力袭击中。
6. Think of that luminous moment when a poet captures something you'd felt but had never articulated; or when you'd struggled to summarise your thoughts, but they crystallised in conversation with a friend. (Para. 8)
想一想那些醍醐灌顶的时刻：诗人捕捉到你所感受到的却从未表达过的东西；或者在与朋友交谈时你灵光一现，信口而出你曾难以总结、难以表达的一些想法。
7. By contrast, "dialogical" theories, brought to life in experiments such as Lisa Freund's "doll house study" from 1990, emphasize interactions between the child and the adult who can provide 'scaffolding' for how she understands the world. (Para. 10)
相比之下，从 1990 年开始，对话理论才在丽莎·弗伦德的“玩偶屋研究”等一系列实验中得到呈现。该理论强调孩子和成年人之间的互动，认为成年人可以为孩子们了解世界提供“脚手架”。
8. Deprived of contact and interaction – the external perspective needed to consummate and

sustain a coherent self-image – a person risks disappearing into non-existence. (Para. 11)

如果失去联系与交流这种完善和维持清晰自我形象的外部因素，人会面临失去自我的危险。

9. But for the most part, scientific psychology is only too willing to adopt individualistic Cartesian assumptions that cut away the webbing that ties the self to others. (Para. 12)

但是在大多数情况下，科学意义上的心理学非常乐意采用个人色彩浓厚的、切断了自我与他人相互联系的笛卡尔式假说。

Unit 2 Geoscience (P26-30)

1. According to the lieutenant governor, Thomas Stamford (later Sir Stamford) Bingley Raffles, to whom volcanologists are indebted for his accounts of the eruption, the detonation was so loud that it was mistaken across Java for cannon fire, causing consternation among the British troops, which had ousted the Dutch and French forces just a few years earlier. (Para. 2)

因记录了火山喷发事件而令火山学家们感激不已的副州长托马斯·斯坦福德·彬格莱·莱佛士（后来的斯坦福德爵士）表示，此次火山爆发声音之巨大，以至被误认为是爪哇岛爆发战争时发射的加农大炮声，令几年前曾驱赶荷兰和法国军队的英国士兵们惊慌失措。

2. After five days of relative calm, the climactic phase of the eruption began with a colossal explosion that launched a towering column of ash to the edge of space. For four or five days, utter blackness reigned across the island as the hurricane blasts of hot ash and scalding gas – known as pyroclastic flows – scoured the flanks of the volcano of everything and everyone, and drifts of ash metres thick entombed what few signs of life remained. (Para. 3)

经过相对平静的五天之后，一声巨响宣告火山爆发的高潮，喷发的火山灰烬柱高耸入云，直逼天际。在接下来的四五天里，整个岛屿都笼罩在一片漆黑之中，炽热的火山灰和滚烫的气体——即火山碎屑流，像飓风一样吞噬了火山翼侧的一切事物，几米厚的火山灰掩盖之处死寂沉沉，几乎没有任何生命迹象。

3. In addition to the ash, an estimated 200 million tonnes of microscopic sulphur particles pumped into the stratosphere, spread outwards from Sumbawa to form a giant aerosol veil that enclosed the planet and acted as a block to incoming sunlight. (Para. 4)

除了火山灰，估计有 2 亿吨微小的硫磺颗粒注入平流层，从松巴哇向外扩散，形成一个巨大的气溶胶幕，将整个地球包裹起来，成为阻挡阳光照射的屏障。

4. Such was the degree of breakdown of food supply that economic historian John Post has called the episode “the last, great subsistence crisis in the western world”. (Para. 6)

（因火山爆发而引起的）食物短缺问题十分严重，经济历史学家约翰·波斯特称这一时期是“西方世界最近一次严重的生存危机”。

5. The very interconnectedness of world markets may, however, make things worse – the collapse of food production across Europe, parts of North America and perhaps elsewhere, could result in global shortages which in turn would drive a dramatic rise in the cost of food commodities. (Para. 7)

然而，世界市场间的这一密切联系可能会令事态恶化——欧洲、北美部分地区以及其他地区的产粮危机可能带来全球粮食短缺，进而可能导致食品的成本大幅上涨。

6. At the same time, the intense worldwide competition for food supplies, scarce as a consequence

of the harvest failures, could drastically reduce the range of products available in the UK, interfere with supply and distribution, and bring about a collapse of the supermarkets' ultra-sensitive, time-critical, stock-control systems, leaving their shelves increasingly depleted. (Para. 7)

与此同时，由荒年而致的粮食短缺问题也会造成激烈的全球食品竞争，可能会大大减少英国可用的农产品，干扰供应和分销，导致很多超市超灵敏的、时间要求严格的库存管理系统全面崩塌，超市的食品货架也变得越来越空旷。

7. On top of this, harvest disruption in response to volcano weather might extend far beyond Europe, and might – in ensuing decades – be exacerbated by the consequence of rampant climate change. (Para. 8)

此外，火山天气造成的庄稼歉收状况可能远远超出欧洲范围，并且可能在随后的几十年中由于剧烈的气候变化而加剧。

8. While we can't stop the next Tambora, nor handle its potential impacts on the climate and the harvest, we can ensure that contingency plans are in place to keep everyone adequately fed until the sulphur veil dissipates and temperatures return to normal. (Para. 9)

虽然我们不能阻止下一个坦博拉，也不能控制它对气候和庄稼的潜在影响，但是我们可以实施应急计划，确保每个人都能吃饱，直到硫磺消散，温度恢复正常。

9. Looking back at previous episodes of dramatic climate warming provides us with plenty of robust evidence for a vigorous volcanic response, most notably as our world heated up rapidly at the end of the last Ice Age. (Para. 10)

以往气候急剧变暖的历史时期，最为显著的是在地球气温迅速上升的上个冰河世纪末期，为我们提供了大量有力的证据，证明在该时期发生过剧烈的火山反应。

10. That rule of thumb is borne out by the fact that fully half of the biggest eruptions since 1800 originated at volcanoes that had previously been dormant throughout history. (Para. 11)

自 1800 年以来，半数最为猛烈的火山喷发源自于历史上一一直处于休眠状态的火山。这一事实证实了该经验法则。

Unit 3 Physics (P48-53)

1. Without the 1968 experiments of Kendall, Friedman and Taylor at the Stanford Linear Accelerator Center (SLAC), quarks would have remained a mere theory, a will-o-wisp whose existence was confidently postulated but never proven. (Para. 3)

如果没有 1968 年的肯德尔、弗里德曼和泰勒在斯坦福直线加速器中心 (SLAC) 所做的实验，夸克将仅仅是一种理论，一种未经证实缥缈的大胆假设。

2. People similarly know about Wolfgang Pauli and Enrico Fermi stating the requirement for a ghostly particle called the neutrino in the 30s, but ask popular science enthusiasts if they **are aware of** the dogged pursuit of the neutrino by Raymond Davis for over 30 years and you will likely see knitted brows. (Para. 4)

同样，人们熟悉在 30 年代提出了幽灵粒子（即中微子）条件的泡利和费米，但如果你询问科普爱好者们是否了解戴维斯在 30 余年间，一直不懈地捕捉中微子的踪迹，你很可能发现他们眉头紧锁。

3. This gap in perception is especially startling **given** the singular importance of experiment in physics and all of science, a central paradigm that has been the centerpiece of the scientific

method since Galileo (apocryphally) dropped iron balls from the leaning tower of Pisa. (Para. 6)

考虑到在物理学和所有科学领域中实验都是非常重要的一种范式，这种感知上的差距尤其令人吃惊，自伽利略（据传言）从比萨斜塔扔下铁球以来，这就成为核心的科学方法。

4. It seems to me that there are at least two important reasons why the public, in spite of tacitly appreciating the all-important role of experiment in physics, **fails to** give experimentalists their due. (Para. 9)

在我看来，至少有两个重要的原因可以解释为什么尽管公众默认实验在物理学中至关重要的作用，却没有给实验物理学家应有的地位。

5. Nobody can fail to **gasp in awe at an Einstein or Bohr** who, working with a few facts and pencil and paper, divine grand operating principles for the cosmos in short order. (Para. 9)

无人不深深崇敬爱因斯坦或玻尔等科学家，他们仅依据一些事实，靠着纸笔，便在短时间内推测出宇宙宏伟的运行规律。

6. To be fair though, it's hard not to admire theorists when many experimentalists, as ingenious as their contraptions are, "simply" validate things which the theorists have already said. (Para. 11)

不过，公平地说，我们很难不崇拜理论物理学家，因为虽然很多实验物理学家像他们的实验装置一样富有创意，但也“仅仅”是验证了理论物理学家早已说过的东西。

7. Firstly however, it's very important to realize that all the awe for Einstein which we rightly feel comes only after the fact, after a thousand increasingly demanding tests of general relativity have established the veracity of the theory beyond any doubt. (Para. 12)

但重要的是，我们首先要认识到，我们对爱因斯坦怀有的所有崇敬之情都来自于广义相对论在经过千百次日益严格的测试才被证实这一事实之后。

8. Experimentalists often follow in the steps of theorists, but the instances in which they lead the way are **as full of creativity and achievement as** the work of **an Einstein, Bohr or Feynman**. (Para. 13)

实验物理学家经常跟随理论物理学家的脚步，而有时他们也会引领理论物理学家，其过程就像爱因斯坦、玻尔或费曼等这类科学家的工作一样充满了创造力，成就非凡。

9. **If** we want to improve the public visibility of experimentalists and place experimentalists in their rightful place in the pantheon of popular physics, the main initiative **would have to** come from experimentalists themselves. (Para. 15)

如果我们想要提高实验物理学家的公众知名度，并将实验物理学家置于科普物理万神殿的合适位置，主要还是要靠实验物理学家自己。

10. In addition the manipulation of these tools to plumb the depths of nature's secrets is every bit as exciting to its practitioners as calculating the curvature of spacetime is to its own. (Para. 15)

此外，巧用这些工具探究自然的奥秘，对实验物理学家来说，就像计算时空曲率对理论物理学家一样令人兴奋。

Unit 4 Mathematics (P72-76)

1. Maths becomes beautiful through the power and elegance of its arguments and formulae; through the bridges it builds between previously unconnected worlds. (Para. 2)

数学之美，在于其论证和公式的力量与优雅，在于它贯通了原本互不相干的世界。

2. For those who learn **the language**, maths has **the same** capacity for beauty **as** art, music, a full blanket of stars on the darkest night. (Para. 2)
对于学习数学这门语言的人而言，数学和艺术、音乐以及漆黑夜空中的满天星斗一样，美轮美奂。
3. Brain scans of mathematicians show that gazing at formulae considered beautiful by the beholder elicits activity in the same emotional region as great art and music. (Para. 4)
对数学家的大脑扫描显示，当他们凝视自认为美丽的公式时，所激发的大脑情感区域，与欣赏伟大的艺术和音乐时激发的区域相同。
4. The power of an equation to connect what seem like completely unrelated realms of mathematics comes up often. (Para. 8)
一个等式常常具有将看似完全无关的数学领域联系起来的力量。
5. More than 2,000 years ago, the ancient Greek mathematician, Euclid, solved a numerical puzzle **so** beautifully **that** it still makes Neale smile every time it comes to mind. (Para. 10)
2000 多年前，古希腊数学家欧几里得完美地解决了一个数字难题，尼尔每念及此都会欣然而笑。
6. With a grasp of the formulae, we can understand blood flow in the body, make boats glide through the water, and build awesome chocolate enrobers. (Para. 14)
掌握了这些公式，我们便能理解血液如何在我们的体内流动，船只如何在水中漂流，以及如何浸挂美味的巧克力糖衣。
7. Shocking at first pass, Dirac captured what is now a common sentiment: when a beautiful equation seems **at odds with** nature, the fault may lie **not** with the maths, **but** in applying it to the wrong aspect of nature. (Para. 15)
乍一看让人惊奇，但狄拉克捕捉到了一种普遍的看法：当一个美丽的方程式看似有悖自然规律时，错误可能不在数学本身，而在于其用错了领域。

Unit 5 Computer Science (P96-98)

1. Whereas computers use zeros and ones to **store and manipulate** data, the neurons in our brains **transmit** information in binary, on/off spikes known as action potentials. (Para. 1)
计算机使用 0 和 1 来存储、处理数据，而我们大脑中的神经元则以二进制形式的开/关尖峰来传输信息，这些尖峰被称为动作电势。
2. This basic similarity is what **underlies** the burgeoning field of computational neuroscience, which hopes to understand how neuronal networks **give rise to** processes like memory and facial recognition so that they might be **replicated** in intelligent machines. (Para. 1)
(两者之间的) 这一基本的相似性奠定了新兴的计算神经科学领域的基础，该学科希望了解神经网络是如何完成记忆和面部识别等过程的，以便将它们复制到智能机器中。
3. The central problem remains: we have no real understanding of how the brain **gives rise to** the mind, of how neurons and action potentials create consciousness. (Para. 2)
核心问题依然存在：我们没有真正理解大脑是如何产生思想的，也就是神经元细胞和动作电位是如何产生意识的。
4. If they could accurately **recreate** the behaviors and structures of a biological brain, their computer simulation should **shed light on** both normal cognition and disorders like depression

and schizophrenia. (Para. 4)

如果他们能够准确地再现生物大脑的行为和结构，他们的计算机模拟便可阐释正常的大脑认知功能和诸如抑郁症、精神分裂症等疾病。

5. And this invention of analogy relies not on analytic problem-solving thought but on letting your mind **drift** from one thought to another in a sort of **free-associative state**, says Gelernter. (Para. 8)

格伦特尔说，这种类比的产生不是依赖于分析性的解决问题的思维方式，而是依赖于让自己的大脑处于自由联想的状态，从一种想法不知不觉地转到另一种想法。

6. Though there may not be an exact word to describe this **nuanced** emotion, the mind can recognize it and can connect two very different scenes that may have **inspired** the same emotion. (Para. 9)

尽管可能没有一个确切的词来描述这种微妙的情感，但大脑可以识别它，并且可以联想起两个可能激发了同样情感的截然不同的场景。

7. The other difficulty with emotion – and the reason why computers won't ever be able to experience emotions the way humans do – is that they are produced by an interaction between the brain and the body working together. (Para. 10)

情感产生的另一个难点（也是计算机不能以人类的方式体验情感的原因）是，情感是在大脑与身体协同工作相互作用的过程中产生的。

Part. 2 Vocabulary

Unit 1 Psychology (P7)

1. Nowadays, there are hundreds of insurance policies that purport to provide cyber insurance coverage.
如今，有数百种保险单声称提供网络保险。
2. Even modest price competition can easily wipe away a third or more of operating income if grocers use lower prices to win customers.
如果杂货商使用较低的价格来赢得客户，即使是适度的价格竞争也很容易抹去三分之一或更多的营业收入。
3. Oracle Mobile Cloud aims to provide a more contextual user experience, which enables chatbots to switch seamlessly between unstructured conversation and personalised, structured data exchange.
Oracle Mobile Cloud 旨在提供更具情境性的用户体验，使聊天机器人能够在非结构化对话和个性化、结构化数据交换之间无缝切换。
4. In a beautiful mid-19th century painting by Rosa Bonheur, it's possible to see asymmetrical "mountains" in the contour of her sheep's hindquarters.
在 Rosa Bonheur 的一幅美丽的 19 世纪中期画作中，可以看到她绵羊后腿轮廓上的不对称“山脉”。
5. He looked pleased: a(n) solitary man, by the look of him, one who cherished his privacy.
他看起来很高兴：从他的样子来看，他是一个孤独的男人，一个珍惜隐私的人。
6. Each step you take provides scaffolding which will enable you to build the essay a little

further.

你迈出的每一步都提供了脚手架，使你能够进一步构建论文。

7. It is axiomatic that all the sites that are infected should be treated if there is to be any hope of cure.

不言而喻，如果希望治愈，所有受感染的部位都应该得到治疗。

8. The memoirs of these survivors are rarely inscribed in the chroniclers' sentimental journeys.

这些幸存者的回忆录很少被记载在记录者的感伤之旅中。

Unit 3 Physics (P55)

1. Nor can I conjecture how far I strayed north or south from my course.

我也猜不出我偏离了航线多远。

2. The renowned theoretical physicist has for years been a(n) proponent of real-life, NASA-led interstellar travel.

这位著名的理论物理学家多年来一直是 NASA 领导的星际旅行的支持者。

3. My children's teeth never had to have all this contraption on them.

我孩子的牙齿上从来不需要装这种装置。

4. I would address you frankly and admonish you to go no more into such places.

我要坦率地告诉你，劝你不要再去这样的地方了。

5. Even people who postulate a creative God usually acknowledge that his existence shifts the big question rather than resolving it.

即使是那些假设有创造上帝的人通常也承认，上帝的存在会转移大问题，而不是解决问题。

6. This video of one of his last, and most impressive, stunts was released as a(n) tribute to his memory.

这段视频是他最后也是最令人印象深刻的特技之一，是为了纪念他而发布的。

7. We came up with a(n) ingenious plan that would light a fire in the belly of the digital revolution.

我们想出了一个巧妙的计划，它将点燃数字革命的火焰。

8. He often receives inquiries from sellers eager to verify that their items are authentic.

他经常收到卖家的询问，他们急于核实他们的物品是否是正品。

9. Quality can be found in the most mundane works of man - even within the rusting gears of a motorcycle engine.

品质可以在人类最平凡的作品中找到 - 即使是在摩托车发动机生锈的齿轮中。

10. There were three main groups competing for supremacy among them.

有三个主要群体在争夺其中的霸权。

11. Despite the increase in recognition of autism spectrum disorders in Western countries, the real cause of the disease continues to confound and confuse scientists.

尽管西方国家对自闭症谱系障碍的认识有所提高，但这种疾病的真正原因仍然让科学家们感到困惑和迷惑。

12. Accordingly, it tends to face less criticism on the basis of veracity and more on its moral

implications.

因此，它往往较少受到关于真实性的批评，而更多地受到关于其道德含义的批评。

13. But to recognise that the soul of a man is unknowable is the ultimate achievement of wisdom.

但认识到人的灵魂是不可知的，是智慧的终极成就。

14. I anticipate no difficulty, though it requires some thought in manipulation.

我预计不会有什么困难，尽管在操纵上需要一些思考。

15. Do you seriously think of becoming a(n) practitioner of medicine?

你真的想成为一名医生吗？

Unit 4 Mathematics (P77)

1. The book engagingly relates mathematics to compelling real-life problems in biology and contemporary society and shows how mathematical tools can be used to gain insight into these modern, common problems to provide effective, real solutions.

本书以引人入胜的方式将数学与生物学和当代社会中引人注目的现实问题联系起来，并展示了如何使用数学工具来深入了解这些现代常见问题，以提供有效、真实的解决方案。

2. By analysing the most elegant and intricate pattern known to mathematics, Lisi has uncovered a(n) underlying relationship among all the universe's particles and forces, including gravity.

通过分析数学中已知的最优雅、最复杂的模式，Lisi 发现了宇宙中所有粒子和力（包括重力）之间的潜在关系。

3. In all demonstrative sciences the rules are certain and infallible; but when we apply them, our fallible and uncertain faculties are very apt to depart from them, and fall into error.

在所有示范科学中，规则都是确定的和绝对正确的；但是当我们应用它们时，我们易犯错误和不确定的能力很容易偏离它们，并陷入错误。

4. As part of a study into the mathematical understanding of engineering students, a questionnaire has been developed which seeks to elicit from students their concept images attached to key mathematical concepts.

作为对工程专业学生数学理解研究的一部分，我们开发了一份问卷，旨在从学生那里引出他们对关键数学概念的概念形象。

5. In mathematical system theory, a(n) multidimensional system or m-D system is a system in which not only one dependent variable exists (like time), but there are several independent variables.

在数学系统理论中，多维系统或 m-D 系统是一个不仅存在一个因变量（如时间）而且存在多个自变量的系统。

6. The movie *Hidden Figures* tells the story of Katherine Johnson, Dorothy Vaughan and Mary Jackson. These black women represented dozens, if not hundreds, of black female “computers” whose largely unrecognised intellectual contributions after World War II gave rise to the US space programme.

电影《隐藏人物》讲述了凯瑟琳·约翰逊、多萝西·沃恩和玛丽·杰克逊的故事。这些黑人女性代表了数十名甚至数百名黑人女性“计算机”，她们在二战后做出的智力贡献在很大程度上未被认可，但却促成了美国太空计划的诞生。

7. Business leaders are understanding the importance of a cohesive, collaborative and creative

working environment and luckily, are acknowledging that this can be done most effectively with a(n) diverse (diversity) workforce.

商界领袖正在认识到一个有凝聚力、协作性和创造性的工作环境的重要性，幸运的是，他们认识到，通过多元化的员工队伍可以最有效地做到这一点。

8. The concept of the interdependence and indivisibility of human rights, as originally conceived, refutes any suggestion of a hierarchy of rights.

人权相互依存和不可分割的概念，正如最初设想的那样，驳斥了任何关于权利等级制度的建议。

Unit 5 Computer Science (P100)

1. Although in both emotions sympathetic symptoms are present, different autonomic-somatic patterns underlie aggression and anxiety, respectively.

尽管两种情绪都存在交感症状，但不同的自主神经-躯体模式分别构成了攻击性和焦虑的基础。

2. In addition, the results will closely simulate the process that occurs during real trading, in which traders frequently re-optimize their systems to bring them up-to-date with fundamental or technical changes in the trading market.

此外，结果将紧密模拟真实交易过程中发生的过程，交易员经常重新优化他们的系统，以使其与交易市场的基本或技术变化保持同步。

3. Unresolved issues often come back later to haunt us. Many of these challenges can be the result of early childhood experiences.

未解决的问题往往会在以后再次困扰我们。这些挑战中的许多可能是早期童年经历的结果。

4. It's very unlikely that the burgeoning field of nano-biotechnology will be reserved solely for medical uses.

蓬勃发展的纳米生物技术领域不太可能仅用于医疗用途。

5. In the absence of existing human "herd" immunity to this virus, only immunisation provides a significant hope of suppressing the long-term impact of this newly emergent virus.

在人类对这种病毒没有“群体”免疫的情况下，只有免疫才能为抑制这种新出现的病毒的长期影响提供巨大的希望。

6. Thus, virtually all her time and energy is monopolised by the children.

因此，她几乎所有的时间和精力都被孩子们垄断了。

7. The action of municipal, county, or state school boards or boards of education is small, infinitesimally small in comparison with the number of districts.

市、县或州学校董事会或教育委员会的行动很小，与学区数量相比，微不足道。