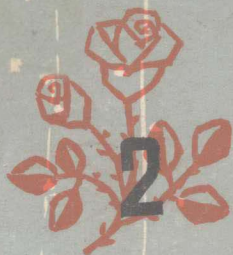


英语注释文选

北京外国语学院英语系编



北京出版社



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北京外国语学院英语系
《英语注释文选》小组编

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Charles Robert Darwin¹

by Patricia G. Lauber

IN the year 1859 a shy and modest scientist set off a bombshell² in the world of ideas. His name was Charles Darwin, and his bombshell was a book known as *Origin of Species*.³ The book contained the first proof of evolution — the theory that all living things have developed, or evolved,⁴ from older forms of life. The ideas in this book were to change man's thinking about his place in the world and to add millions of years to the earth's history.⁵

In Darwin's day most people believed that the earth and all forms of life had come into being⁶ around the year 4,000 B.C. Each form of life, whether plant or animal,⁷ was separate⁸ and unchanging. Man⁹ himself was not related to any other form of life.

~~My~~ A few scientists — among them Darwin's own grandfather — did not hold with this view of life.¹⁰ They believed that forms of plant and animal life had slowly changed through the ages. They believed that old species had evolved into new ones. But no one had managed to explain¹¹ how such evolution took place. Nor could anyone, before Darwin, prove that it had happened.

Charles Darwin was born on February 12, 1809, at Shrewsbury,¹² England, the next to youngest of six children¹³ in a rich and well-known family. His father, Robert, was a successful physician; his grandfather, Erasmus, was famous as a scientist and as a poet.

Charles's mother died when he was 8, and three older sisters took charge of his upbringing.¹⁴ He attended an excellent school, but his record was far from brilliant.¹⁵ Young Charles, however, did show a strong interest in nature. At dawn he was up and out collecting bird nests, shells, and rocks.¹⁶ He also liked helping an older brother perform chemistry experiments.¹⁷

At 16 Charles was sent to Edinburgh University¹⁸ to study medicine. But watching surgery made him so ill that in 1828 he transferred to Cambridge University,¹⁹ where he studied for the clergy.²⁰ However, his interest in plants and animals remained strong.

While at Cambridge²¹ he read Alexander von Humboldt's *Personal Narrative*.²² This book filled him with enthusiasm for natural history and the travels of naturalists.²³ Later he also studied geology, which led him into a new and developing field of science: the study of fossils.²⁴

Darwin graduated in 1831. Within a few months opportunity came his way.²⁵ Through his friendship with Dr. Henslow, his botany professor, Darwin was appointed naturalist²⁶ on the naval vessel H. M. S. *Beagle*.²⁷ The

Beagle was about to²⁸ sail on a 5-year voyage around the world. The main object was to explore and chart the coasts of South America.²⁹

Just before sailing Darwin began to read Sir Charles Lyell's³⁰ book *Principles of Geology*. Lyell explained that the earth's features were constantly changing. He also emphasized that the present was the key to the past.³¹ This idea was to have a great influence on Darwin.³²

During the voyage of the *Beagle*, expeditions were made into South America, the Galápagos Islands,³³ and other islands of the Pacific.³⁴ Wherever he went, Darwin studied the geology. He searched for fossils. He observed plant and animal life. And he began to think about relationships. Perhaps living creatures like armadillos were related to fossil animals.³⁵ Perhaps the ground finches³⁶ of the Galápagos were related to the finches of the West Indies.³⁷ He recorded such observations and ideas in a journal that was to become the basis for his theory of evolution.

In 1836 Darwin returned to London, where he wrote his account of the voyage, *Journal of a Naturalist*. By now he was convinced that all forms of life had evolved from earlier forms.³⁸ The question was: How did such evolution occur? To unlock the past,³⁹ Darwin began to study the present.

Animals, he noted, were bred for certain useful characteristics.⁴⁰ English race horses were an example of this. Men selected their best race horses and bred them for future

generations.

Selection by man was the key to breeding in domestic animals.⁴¹ Darwin was convinced that selection also took place in nature, but he wondered how.

In 1838 Darwin found a clue⁴² in an essay by Thomas Robert Malthus, an English economist. Malthus made the point that in overcrowded areas men must compete for food, shelter, and other necessities. In this struggle for existence, only the strongest survived.⁴³

Darwin immediately saw that this idea applied to plants and animals. The best-adapted survived;⁴⁴ the others did not. This was how natural selection worked; this was how new species evolved.

While still working in London, Darwin married his cousin Emma Wedgwood in 1839. A few years later they moved to Down, Kent, a country town not far from London. Having inherited money,⁴⁵ Darwin settled down to a quiet life, for his health was poor. He could work only for short periods, but he managed to make the best possible use of his time.

By 1844 Darwin had sketched out his theory in a 230-page manuscript. But he was too careful a scientist to rush into publication.⁴⁶ Over the next 12 years, he collected evidence for his theory, all the while writing on many other fields of natural history.⁴⁷

In 1858, before he could publish this work,⁴⁸ Darwin was sent a manuscript by Alfred Russel Wallace,⁴⁹ an Eng-

lish scientist. Darwin was stunned to find⁵⁰ a theory of natural selection in this manuscript. Wallace's paper⁵¹ was ready for publication; Darwin's huge book — the result of years of work — was not. What, Darwin wondered, should he do?

On the advice of Lyell, Darwin drew upon two accounts of his theory that he had written earlier.⁵² This was presented with Wallace's paper at the Linnaean Society meeting in London in 1858. The following year Darwin published his great work, *On the Origin of Species by Means of Natural Selection*.⁵³ This book contained both the theory of evolution and the evidence for it.

All 1,250 copies of the first edition were sold in 1 day. Prominent scientists such as Thomas Henry Huxley,⁵⁴ Sir Charles Lyell, and Asa Gray⁵⁵ admired the book. But many of the ideas in *Origin of Species* were so new and upsetting⁵⁶ that the book also drew attacks.⁵⁷ Darwin wrote to Lyell, saying, "I am determined to fight to the last." Actually, Darwin never had to do much fighting. His friend Thomas Henry Huxley championed⁵⁸ his theory of evolution in public. Huxley, unlike Darwin, always enjoyed a rousing debate.

In the following years Darwin developed his ideas on evolution in a number of books. In *The Variation of Animals and Plants under Domestication*⁵⁹ (1868), the theory of natural selection was explained more fully. In *Descent of Man and Selection in Relation to Sex*⁶⁰ (1871), Darwin

discussed the origin of man, stating that men and apes descended from the same group of animals.

Darwin's books on botany were written in his later years. He loved doing experiments⁶¹ with plants and recording the results. *The Power of Movement in Plants* was written with the aid of a son, Sir Francis Darwin, who became a well-known botanist.

Darwin died on April 19, 1882, survived by two daughters and five sons.⁶² He was honored for his achievements by being buried with England's greatest men in Westminster Abbey,⁶³ and to this day scientists continue the work he began.

〔注释〕

本文选自 *The New Book of Knowledge*, 1971.

1. Charles Robert Darwin: 查理士·罗伯特·达尔文 (1809—1882), 英国博物学家, 著有《物种起源》和《人类起源及性的选择》等书。提出了以自然选择为基础的进化学说, 摧毁了各种唯心的神造论、目的论和物种不变论, 并给宗教以一次沉重的打击。《人类起源及性的选择》则更以大量材料论证人类来源于猿。马克思和恩格斯对达尔文的进化论给予很高的评价, 同时, 也指出他的学说的某些错误和不足的方面, 即他接受了马尔萨斯人口论的影响, 错误地认为生存竞争是生物进化的决定因素。
2. set off a bombshell: 爆炸了一颗炸弹 (人是猴子变的, 不是上帝创造的。达尔文是第一个提出这个理论的人, 这个理论使人们思想发生了急剧的变化)。set off 这里等于 explode。例如: set off a cracker (放爆竹)。
3. a book known as *Origin of Species*: 一本称之为《物种起源》的书。known as *Origin of Species* 是用作定语的分词短语。be known as 是常用短语, 意思是“以…著称”, 例如: He is generally known as a nuclear scientist. (他一般是作为一个核物理学家而闻名于世。)

- species ['spi:ʃiz]: 种类, 单、复数的形式相同, 例如: the human species: (人类)。
4. evolve, v.i.: 进化。evolve from: 从…进化而来, 例如: Man has evolved from ape. (人类从类人猿进化而来。) evolve into: 进化到, 例如: ... old species had evolved into new ones. (……老的物种进化到新的物种。——见本文第三段)
5. The ideas in this book were to change... to the earth's history: 书中的观点将要改变人类对自己在世界中所占地位的看法, 并且把地球的历史增加了几百万年。句中 were + 不定式表示将要发生而当时又没有完全料到的事情。例如: They never realized they were never to meet again. 表示他们以后没有再见面, 而当时他们并未料到。
6. coming into being: 形成。being = existence 如: The Red Star People's Commune came into being in 1958. (红星人民公社成立于一九五八年。)
7. whether plant or animal: 不论是植物或是动物。whether... or 是对使用的连词, 表示二者之中任选一个。whether 后面如是名词, or 后面也是名词; whether 后面如系不定式或分句, 则 or 后面也用不定式或分句。例如: It is hard to decide whether to go or stay. (是去是留很难决定。)
8. separate ['sepərit]: 分离的, 不相连的, 是形容词。用作动词时, 意思是“使分离”, 应读作 ['sepəreit]。
9. Man = mankind 人类, 不加冠词。具体名词前加 the 或 a 一般可以表示某类事物的总体概念。例如: The (或 an) ox is a useful animal.
10. A few scientists did not hold with this view of life: 少数科学家不同意对生命的这种看法。hold with = approve of: 赞同。
11. managed to explain: manage 是及物动词, 后面常接动词不定式, 表示“设法做某一件事”。例如: Can you manage to finish the work by the end of this week? (你能设法在本周内完成这项工作吗?) He managed to make the best possible use of his time. (他设法尽量利用自己的时间。)(见本文第十六段)
12. Shrewsbury ['ʃru:zbəri]: 施鲁兹伯里, 英国城市, 在英格兰中部。
13. the next to youngest of six children: 六个孩子中的倒数第二个。

14. three older sisters took charge of his upbringing: 三个姐姐负责抚养他。older sister 是美国人的习惯用法。英国人一般用 elder sister。take charge of: 承担…的责任, 例如: Comrade Chang promised to take charge of this work hereafter. (张同志同意今后负责主管这一工作。) 它与 be in charge of 意义上略有不同。be in charge of 说明状态。例如: Comrade Chang is in charge of our department. (张同志负责我们这一部门的工作。)
15. his record was far from brilliant: 他的成绩远不是优秀的。far from 后面省略了 being。例如: far from (being) perfect: 远不是完善的。
16. he was up and out collecting bird nests, shells, and rocks: 他起床出去搜集鸟巢, 贝壳和岩石。collecting bird nests... 是分词短语, 在句中作状语。注意: He has got up 基本上等于 He is up。又如: He has gone out 基本上等于 He is out。都是前者着重动作, 后者着重状态。
17. He also liked helping an older brother performing chemistry experiments: 他也喜欢帮助一个哥哥做化学实验。helping 是动名词, 作动词 like 的宾语。like 之后可以跟动名词, 也可以跟不定式。如: I'd like to stay at home. (我想留在家里。)
18. Edinburgh ['edinbərə] University: 爱丁堡大学。
19. watching surgery made him so ill that in 1828 he transferred to Cambridge University: 观看做外科手术使他感到如此难受, 他就在一八二八年转学到剑桥大学去了。watching 是动名词, watching surgery 是动词 made 的主语。so... that 引导一个表示结果的状语从句, 意思是“如此之…以致于…”。Cambridge ['keimbridʒ]
20. clergy: 牧师。clergy 是集合名词, 指牧师这一类人。to study for the clergy: 为了当牧师而学习, 即研究神学。
21. while at Cambridge: 在剑桥时。这里省略了一些成分, 等于 while he was at Cambridge, 是表示时间的状语从句。因为从句和主句的主语相同, 为避免重复, 而省略了从句中的主、谓语。又如: While (he was) still working in London, Darwin married his cousin Emma Wedgwood, in 1839. (达尔文一八三九年还在伦敦工作的时候和他的表妹爱玛·维吉伍德结婚了。)(见本文第十六段)

22. *Personal Narrative*: 《萍踪散记》。德国自然科学家、地理学家洪保德的著作。
23. enthusiasm for natural history and the travels of naturalists: 对自然史及自然科学家游记的激情。
24. a new and developing field of science: the study of fossils: 一个崭新的正在发展的科学领域: 对化石的研究。fossils ['fɒslz]
25. opportunity came his way: 他的机会来了。his way 是状语。
26. Darwin was appointed naturalist: 达尔文被任命为博物学家。naturalist 在句中作表语。
27. H.M.S. *Beagle*: 英国军舰贝格利号(一译猎犬号)。H.M.S. 是 His (or Her) Majesty's Ship 的缩写, 意思是英(女)王陛下的船。在英国军舰前都加 H.M.S.。
28. be about to: 即将。例如: He was about to go out when it started to rain. (他刚要出去, 天却开始下雨了。)
29. The main object was to explore and chart the coasts of South America: 主要的目的是探测南美洲海岸并绘制成图。不定式 to explore and (to) chart 在动词 was 之后, 作表语。
30. Sir Charles Lyell: 查理士·赖尔爵士(1797—1875), 英国地质学家, 近代地质学的奠基者。
31. the present was the key to the past: 探讨过去首先应着眼于现在。key 的原意是“钥匙”, 这里引伸为“线索”, 意即“现在是了解过去的线索”。例如: This is the key to the solution of the problem. (这一点是解决问题的关键。)
32. This idea was to have a great influence on Darwin: 这种观点后来对达尔文产生了巨大的影响。was to have 见注 5。
33. the Galápagos [gə'ləpəgəs] Islands: 加拉帕戈斯群岛, 在南美洲厄瓜多尔。
34. the Pacific [pə'sifik]: 太平洋。
35. Perhaps living creatures like armadillos were related to fossil animals: 象犛犛这类生物也许是和古代动物化石有关的。
36. ground finch: 地雀。
37. the West Indies ['west'indiz]: 西印度群岛。
38. all forms of life had evolved from earlier forms: 生命的各种形式都

- 是从更早的形式演变而来的。见注 4。
39. to unlock the past: 为了揭示过去。
40. Animals, he noted, were bred for certain useful characteristics: 他注意到, 饲养动物都是为了它们的某些有用的特性。he noted 是插入成份。
41. Selection by man was the key to breeding in domestic animals: 人工选择是饲养家畜的关键。
42. clue: 线索。
43. Malthus ['mælθəs] made the point that ... only the strongest survived: 马尔萨斯认为, 在人口过剩地区, 人们必须为了食物、住所及其他必需品而竞争。在这场为了生存而进行的斗争中, 只有最强者才能生存。to make a point: 立论, 论证。
44. The best-adapted survived: 适应力最强的活下来了。The best-adapted 后面省略了 plants and animals。
45. Having inherited money: 由于继承了一笔钱。是分词短语, 在句中作状语用。
46. But he was too careful a scientist to rush into publication: 但是作为一个科学家, 他非常谨慎, 而不急于发表。too ... to 是一个常用词组, 意思是“太...以致不...”。例如: He is too busy to come today. (他今天太忙不能来。)
47. all the while writing on many other fields of natural history: 一直就自然史的很多其它方面进行著述。writing ... 是分词短语, 在句中作状语用。
48. this work: 这部著作, 指上文提到的手稿。
49. Darwin was sent a manuscript by Alfred Russel Wallace...: 达尔文收到了华莱士寄给他的一篇手稿。was sent 是被动语态。a manuscript 是保留宾语。sent 可以有直接和间接两个宾语。变为被动语态时一个宾语成了主语, 另一个仍为宾语, 叫做保留宾语。Alfred Russel Wallace: 阿尔弗雷德·罗素·华莱士(1823—1913), 是英国生物学家, 生物地理学创始人。
50. to find: 发现。不定式作状语, 说明 stunned。
51. paper: 论文。
52. Darwin drew upon two accounts of his theory that he had written ear-

- lier: 达尔文拿出早些时候写好的阐述他的理论的两篇文章。draw upon = use: 利用, 例如: We'll draw upon your experience as a teacher to compile the textbook. (我们要利用你作为教师的经验, 去编一部教科书。) that he had written earlier 是定语从句, 修饰 accounts。
53. *On the Origin of Species by Means of Natural Selection*: 《论通过自然选择而实现的物种起源》, 即《物种起源》一书的全名。
54. Thomas Henry Huxley: 托马斯·亨利·赫胥黎(1825—1895), 英国博物学家, 以宣传达尔文主义出名。
55. Asa Gray: 阿萨·格雷(1810—1888), 美国植物学家。
56. upsetting: 现在分词用作形容词, 意思是引起混乱的。
57. draw attacks: 招来了攻击。
58. champion, v.t.: 支持。
59. *The Variation of Animals and Plants under Domestication*: 《动物和植物在家养下的变异》
60. *Descent of Man and Selection in Relation to Sex*: 《人类起源及性的选择》
61. He loved doing experiments: 他喜欢做实验。doing 是动名词, 参看注19。
62. survived by two daughters and five sons: 死后他留下两个女儿和五个儿子。survive v.t.: 比…活得久。例如: He survived his wife for ten years. (他比他的妻子多活十年。) 原句中 survived 是过去分词用于被动意义。
63. Westminster Abbey: 威斯敏斯特教堂。是英国有名人物国葬的地方。

胡洪德 注释

Thomas Alva Edison¹ (*Excerpts*)

by Mervyn D. Kaufman

Talking Tinfoil²

THOMAS Alva Edison's first laboratory was in Newark,³ New Jersey.⁴ There he worked on many inventions. In 1876 Edison built a big, new laboratory. It was in Menlo Park,⁵ New Jersey. Soon Edison was working on an important new invention. It was a machine that he hoped would talk.

"Talk!" cried one of his helpers. "How can a machine say anything?"

"Just wait," the inventor said with a smile. "One of these days I'll show you that it can be done."

It was not long before Edison was ready to try out his new machine.⁶

"Bring me some tinfoil," he called to one of his helpers. The man brought some thin sheets of the shiny metal.⁷ The other men stopped their work and came to watch.

A strange-looking little machine⁸ sat on the table in front of Edison. The men watched as he wrapped a sheet of tinfoil around a part of the machine. This part was fairly

long and shaped like a tube.⁹

Then Edison started turning a crank.¹⁰ The tube wrapped in tinfoil turned round and round.¹¹ Then Edison bent over the little machine. He shouted as loud as he could.¹²

"Mary had a little lamb. . . ."

Its fleece was white as snow.

And everywhere that Mary went,

The lamb was sure to go."

Edison stopped cranking.¹³ He turned the machine back to the starting point. His helpers were laughing now. It was funny to hear Mr. Edison saying that old nursery rhyme.¹⁴

The inventor turned the crank again. The tube began to spin round and round.

Suddenly the men stopped laughing. The sound of Edison's voice was coming from the tinfoil.¹⁵

"Mary had a little lamb.

Its fleece was white as snow . . ."

These were the first words ever recorded.¹⁶ Edison was right. He *had* made a machine that could talk. It was the phonograph.¹⁷ It became one of his most famous inventions.

A Safe, Bright Light

Thomas Edison sat in his laboratory. His feet rested on his desk. It was nearly midnight, an October night in 1879. Edison was tired and worried. He had been working

on one invention for over a year. He began it soon after he had finished the phonograph.

He was trying to invent a new kind of light. He wanted one that would burn brighter than the gas lights everyone used.

Gas lights flickered like candlelight.¹⁸ And there was always a danger of fire.¹⁹ Edison wanted a light that would be steady and even.²⁰ And he wanted it to be safer and cleaner than gas light.

"Electricity is the answer," he said. "But how?" The problem had bothered him for a long time.²¹

"To make light, something has to burn or glow,"²² he thought. "There's nothing hard about that."²³

He looked at the lights in the laboratory. A wick burned in the candle on the desk. Gas burned in the lamps overhead.

"What can I burn in my *electric* lamps?" he wondered. "It must be something that will glow for a long time. It's no use if it burns right up."²⁴

So far, only one thing was certain. An electric light would have to burn inside a glass bulb. The bulb must be sealed tightly so no air could get in.²⁵ Even a tiny bit of air would make the light go out.²⁶

Edison smiled. He remembered the many things he had tested inside glass bulbs. First there was a piece of horsehair, then straw, then cornsilk and then a splinter of wood. He had even used a hair from the beard of one of