

TOPWAY

大学英语

上海交通大学
潘晓燕 审订



6级 考试优化训练

破译命题规律，快刀斩乱麻

武敏 主编

- 黄金法则归纳
- 专项扫雷训练
- 710分优化训练

MP3版

710分 新题型

一针见血，远胜废话连篇

三步进阶：定位 • 解析 • 点睛

译划线点评化繁为简 化英为中 画龙点睛

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主 编:武 敏

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前言

《大学英语 6 级考试优化训练》是专供 CET-6 考生考前冲刺使用的“一本通”型参考书。

技巧优化 快刀斩乱麻

一、命题规律破译

本书作者深入研究了每种题型的命题手段、考查角度、考点范围与难点设置,归纳出科学、严密的命题规律。这些理论全面剖析出题者的考查目的、出题心理和陷阱设计方法,考生读后往往会恍然大悟。这对在试题迷宫中晕头转向、苦苦摸索的考生来说,无异于“快刀斩乱麻”!

二、答题技巧总结

针对出题者的各种命题手段和规律,本书以图表框的形式为考生总结应对技巧、指明解题捷径。与其他同类图书说得天花乱坠、华而不实的所谓“技巧”不同,本书的图表框只是寥寥数语,却又字字珠玑。这些图表框有的言简意赅地说明某个命题规律的解题方法,有的罗列解题关键词汇,还有的传授在考试中屡屡应验的“应急一招”——不仅巧妙,而且实用。

训练优化 拒绝题海捞针

一、专项扫雷训练

有一条 80/20 黄金法则,用在考试复习上,意思就是:只要方法得当、善于抓住要点,用 20% 的时间和精力就能达到 80% 的效果。因此,为了帮助考生进行有效的复习备考,本书设计了大量有针对性的“专项扫雷训练”。这些训练题反复再现命题规律,让考生灵活运用学到的解题技巧,培养出敏锐的“题感”,迅速提高应试能力。

二、710 分优化训练

按照 6 级考试的命题要求,本书设置了 2 套优化训练题。一方面,考生在学完理论之后,可以借助完整的试题训练来检验学习成果,看看对技巧的掌握是否已经融会贯通;另一方面,他们还可以通过考前冲刺训练,激活应试细胞,让自己达到最佳的临考状态。

点评优化 一针见血,远胜废话连篇

一、全文翻译

为了帮助考生进一步深入地理解和学习,本书对所有的阅读文章都给出了准确、流畅的译文,让

考生更加顺利地学习提高。

二、划线点评

本书在听力原文和阅读理解的译文里,给解题的关键句加上了下划线,并标明其对应的题号,帮助考生迅速剔除无关信息,沙里淘金,萃取答题精华。

三、化繁为简

题目的解析并非越长越好!要做到冗长并不难,难的是要“到位”。一大堆无关紧要的东西往往会湮没重点,读完了还是令人迷惑不已。本书的解析力求短小精悍、一针见血,把重点放在“到位”二字上。

四、化英为中

在使用英语应试图书时,很多考生都有这种感觉:解析常常大量引用英语原文,解释是中英文夹杂的长篇大论,考生读起来苦不堪言。本书摒弃了这一得不偿失的解析方法,杜绝大量引用英语原文的做法,而是用精练的中文进行解析,只保留原文中的英文关键词/词组。考生读起来感觉思路清晰,能够更加透彻地理解题目。

五、画龙点睛

考生进行优化训练,目的不只是学会解答这些题目,还要学会解这类题的方法。本书概括总结每一类题的性质、解答方案,或者剖析这类题的命题陷阱。让考生能够触类旁通,在学会解答一道题的同时,也学会解答一类题。

编者

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第1章

快速阅读理解

新六级中的快速阅读要求考生在 15 分钟内读完一篇约 1300 词的文章,并完成相应的考题。考查的文章以说明文为主,议论文次之,较少出现记叙文。考题有两种类型,共 10 道题:4 道判断题和 6 道完成句子题。其中判断题要求判断所给句子是正确的(Y)、错误的(N)还是未提及的(NG)。

快速阅读主要考查考生的略读(skimming)与寻读(scanning)能力。略读是对文章或段落整体结构、主题等的全局性把握,寻读则主要是对具体细节、事实等局部性的寻找和定位。

总的解题思路

1. 快速浏览文章开头、结尾部分及各个小标题,弄清文章的大体结构和主要内容。
2. 快速浏览考题,正确理解题目所表述的内容,找出考点所在——题眼,特别要关注诸如因果、比较、目的、方式、数字、时间等细节。
3. 定位答案出处。将题目中的关键词与文章各部分小标题的内容进行对照,大致定位需查读的信息。
4. 确定答案。阅读所定位的部分,认真推敲答案。对于是非判断题,应对照原文与题目,特别注意题目中句式或用词的变化是否正确;对于完成句子题,首先确定需填词或词组的词性,再对照原文,找到缺失的信息。



第1节是非判断题5种解题技巧

一、Yes 题是原文的同义转述

解题技巧:一般来说,题目很少照搬原文语句,多数是使用同义词或近义词改写,或同义改写句子结构,如把主动结构改成被动结构,以达到同义替换的目的。这种题目的答案为Y。

【例1】The only obstacles to opening up space to tourists are the space agencies, who are concerned with safety and the development of a reliable, reusable launch vehicle. [2006年12月六级新题型]

【题目】The space agencies are reluctant to open up space to tourists.

【解析】原文中的表语 the space agencies 在题目中变成了主语,原文中的 obstacles 和题目中的 reluctant 虽属不同词性,但都表示否定意义,也就是说二者表意相近,故答案为Y。

【例2】They receive nearly the same amount of sunlight, and therefore heat, all year. Consequently, the weather in these regions remains fairly constant. [2006年12月六级试点考试样卷]

【题目】There is not much change in the weather in the tropical rainforests all the year round.

【解析】constant 的意思是“稳定的,不变的”,与题目中的 not much change 的意思是一致的,因此答案是Y。

二、Yes 题是对原文的正确概括

解题技巧:题目是对原文几句话或一个段落或几个段落所表达的意思的浓缩。

【例3】These trips are the beginning of what could be a profitable 21st century industry. There are already several space tourism companies planning to build suborbital vehicles and orbital cities within the next two decades. These companies have invested millions, believing that the space tourism industry is on the verge of taking off. [2006年12月六级新题型]

【题目】Several tourism companies believe space travel is going to be a new profitable industry.

【解析】原文段落首句的 a profitable 21st century industry 和末句的 on the verge of taking off 与题目中的 going to be a new profitable industry 相符,因此题目是对本段内容的高度概括,答案是Y。

三、No 题改变了原文陈述的范围或部分内容

解题技巧:有的题目通过改变(扩大或缩小)原文陈述的范围来改变原文的意思;有的题目的陈述前半部分与原文一致,后半部分不一致,以此蒙蔽考生。

【例4】Today, tropical rainforests cover only 6 percent of the Earth's ground surface, but they are home to over half of the planet's plant and animal species. [2006年12月六级试点考试样卷]

【题目】Virtually all plant and animal species on Earth can be found in tropical rainforests.

【解析】原文只是说热带雨林是地球上有一半以上的动植物物种的家园,而题目则说几乎所有的动植物物种在热带雨林都可以找到,明显扩大了原文陈述的范围,因此答案为N。

【例5】Lance Bass of 'N Sync was supposed to be the third to make the \$20 million trip, but he did not join the three-man crew as they blasted off on October 30, 2002, due to lack of payment. [2006年12月六级新题型]

【题目】Lance Bass wasn't able to go on a tour of space because of health problems.

【解析】题目的前半部分与原文的意思相符,但后半部分 because of health problems 与原文 due to lack of payment 不一致,因此答案为N。

四、No 题将原文的信息张冠李戴

解题技巧:这类题很具迷惑性,因为题目里的信息在原文中都有提到,稍不留神就会误以为正确,但题目实际上将描写A的信息归在了B的名下。

【例6】The overabundance of plants gathering sunlight at the top of the forest blocks most sunlight from reaching the bottom of the forest, making it difficult for robust plants to thrive. [2006年12月六级试点考试样卷]

【题目】Below the canopy level of a tropical rainforest grows an overabundance of plants.

【解析】根据原文, the overabundance of plants 是长在树冠层, 即树林的顶部, 因而阻挡了阳光, 使强壮的植物难以生长, 只能生长一些绿叶很少的植物。题目将关于 thin greenery 的信息错误地归在 the overabundance of plants 的名下。

五、Not Given 题无中生有

解题技巧: 题目部分或全部信息点在原文未提及, 或题目信息点之间的关系在原文中未提及, 这种题目的答案为 NG。是非判断题一定要根据文章作答, 而不能根据常识或背景知识主观推测。

【例7】Since rainforests are at the middle of the globe, located near the equator, they are not especially affected by this change. [2006年12月六级试点考试样卷]

【题目】The largest number of rainforests in the world are located on the African continent.

【解析】原文只是说热带雨林位于地球的中部, 靠近赤道, 并没有说大部分雨林是在非洲, 所以答案是NG。

第2节 完成句子题 3 种解题技巧

完成句子题不仅考查略读和寻读的能力, 还考查在具体篇章中运用语法和词汇的能力。解答这类题时可遵循以下步骤:

- (1) 认真阅读所给出的不完整的句子, 充分理解其含义。
- (2) 分析给出部分的语法结构, 确定空白处的语法功能和词性。
- (3) 找出给出部分的关键词, 以确定该题所需信息在原文中的准确位置。
- (4) 仔细阅读信息源, 对照题目找出答案。

快速阅读的句子填空题难度小于短句问答(属于仔细阅读理解)的填空题, 大部分题目只要能准确定位, 就能直接找到答案, 只有个别题目不能直接填入原文中的原词, 而要根据题干的相应变化相应改动原文, 或根据原文自行组织答案。

根据获得答案的直接程度, 完成句子题大致可以分为以下三类: 答案直接采用原文原词; 答案需对原文稍加改动; 答案需对原文进行概括。

一、答案直接采用原文原词

解题技巧: 虽然题目对原文的某些部分进行了同义替换或甚至改变了原文结构, 但与原文意义一致, 答案也比较明显, 可直接采用原文原词, 不需做任何改动。

【例1】Even Hilton Hotels has shown interest in the space tourism industry and the possibility of building or co-funding a space hotel. However, the company did say that it believes such a space hotel is 15 to 20 years away. [2006年12月六级新题型]

【题目】Hilton Hotels believes it won't be long before it is possible to build a _____.

【解析】空白处需填入名词性成分。原文中的 the possibility of building 与题目中的 possible to build 意义相同, 故答案显而易见是 space hotel, 不需做任何改动。

【例2】The report concluded that at a ticket price of \$50,000, there could be 500,000 passengers flying into space each year. [2006年12月六级新题型]

【题目】Each year 500,000 space tourists could be flying into space if ticket prices could be lowered to _____.

【解析】空白处需填入数词。尽管原文的宾语从句在题目中被改为 if 主从复合句, 答案\$50,000 还是一目了然。

二、答案需对原文稍加改动

解题技巧: 题目改变了原文的叙述角度或句型结构, 虽然答案包含在原文中, 但不是原句原词, 要稍做改动, 如改用同义叙述或改变词性等, 这类改动一般难度不大。

【例3】Eventually, the strangler may block so much light from above, and absorb such a high percentage of nutri-

ents from the ground below, that the host tree dies.

[2006年12月六级试点考试样卷]

【题目】Stranglers are so called because they _____ by blocking the sunlight and competing for the nutrients.

【解析】空白处需要填入谓语部分。根据原文: strangler 在上阻挡了很多阳光, 在下吸收了很多养分, 最终使它所依附的树死掉。换言之, strangler 杀死了它所依附的树。所以空白处要填 kill the host tree。

【例4】Each spacecraft requires millions of pounds of fuel to take off into space, which makes them expensive to launch.

[2006年12月六级新题型]

【题目】What makes going to space the most expensive vacation is the enormous cost involved in _____.

【解析】空白处需填入名词性成分。原文中的 expensive 与题目中的 enormous cost 意思相同, 原文 expensive 之后为动词不定式 to launch, 而题目空白处之前为介词 in, 故初步确定答案为 launching; 但又因为题目中没有 launch 的逻辑宾语, 故需在 launching 后加上 the spacecraft, 完整答案为 launching the spacecraft。

三、答案需对原文进行概括

解题技巧: 个别题目完全改变了原文遣词造句的方式, 迫使考生根据原文自行概括答案。这类题目难度稍大。

【例5】Within the next 20 years, space planes could be taking off for the Moon at the same frequency as airplanes flying between New York and Los Angeles.

[2006年12月六级新题型]

【题目】Within the next two decades, _____ could be as common as intercity air travel.

【解析】空白处需填入名词性成分。原文中的 Within the next 20 years 与题目中的 Within the next two decades 同义, at the same frequency as airplanes flying between New York and Los Angeles 与题目中的 as common as intercity air travel 表意相近, 故初步确定答案为 space planes could be taking off for the Moon 所表达的内容。因为此处需填入名词性成分, 可将该部分进一步概括为 space travel。

第3节快速阅读专项扫雷训练

Passage One

Key to Lightning Deaths: Location, Location, Location

Lightning is a killer. It claims more victims each year than do snowstorms, hurricanes, and tornadoes. It keeps a low profile as the second largest weather-related killer, usually striking one person at a time. Only floods, which can wipe out towns, kill more people.

According to the U.S. National Weather Service, 73 people die from lightning strikes each year and hundreds more suffer life-debilitating injuries. Memory loss, attention deficits, sleep disorders, numbness, dizziness, and weakness are some of the *maladies* (疾病) cited.

The highest death rates from lightning in the United States are in Florida, which is known as the lightning capital of the country. According to the service, from 1959 to 2003 lightning killed 3,696 people in the United States. Of those, 425 were in the Sunshine State. (The only state that did not record a lightning death in the period was Alaska.)

Lightning has injured at least 2,000 people in Florida since 1959.

"A lot of people in Florida are involved with outdoor activities. People are out golfing, they are out boating, so the odds of getting hit by a lightning flash are greater," said Stephen Hodanish, a senior meteorologist and lightning expert with the National Weather Service in Pueblo, Colorado.

While Florida is also the state where the most lightning flashes strike the ground, injury and fatality rates do not exactly correlate with where the most strikes occur. Rather, lightning tends to strike people in places where there are people to strike.

For example, Colorado is 24th in lightning flash density, but is ranked 10th for lightning casualty rates, said Hodanish. The reason for the discrepancy is that a lot of Coloradoans participate in outdoor activities like hiking and camping in the exposed, lightning-prone high country.

Storm Anatomy

On any given afternoon, unstable breezes and moisture ratchet up cumulonimbus (积雨云) clouds in a whirlwind of undrafts and downdrafts that cause particles of rain, ice, and snow to collide.

The collisions prompt electrical charges to separate. Positive charges shoot high, while negative charges hang low. Electrical imbalance intensifies within the cloud and between the cloud and ground.

"Mother Nature doesn't like to see that," said Hodanish.

In an attempt to restore balance, to equalize the charge separation, lightning flashes rip through the clouds, snap out of the sky, and crack to the ground. The average flash packs enough energy to keep a 100-watt light bulb lit for three months.

The flash of light heats the air around it to nearly 50,000 degrees Fahrenheit (27,760 degrees Celsius), which is hotter than the surface of the sun. The scorching heat forces the air to expand in an explosion of thunder.

The most common form of lightning is intracloud lightning, where negative charges seek a connection with positive charges within the clouds. The flashes stay within the clouds, never making contact with the ground.

The lightning that strikes people is a cloud-to-ground flash. This occurs when the charge imbalance between the cloud and ground becomes so great that the negative charge in the lower part of the cloud begins to travel towards the Earth's surface.

As the charge nears the ground, positive charges surge up tall objects like trees, houses, telephone poles, and, sometimes, people. When the negative charge from the cloud connects with these positive charges rising from the ground, a bright flash occurs.

The flashes that reach the ground splinter trees, char forests, and kill people. Cost estimates of the damage caused by cloud-to-ground lightning total in the hundreds of millions of dollars each year, according to the National Weather Service.

Where Lightning Strikes

Thunderbolts rain down with the greatest fervor on tropical, central Africa, according to an analysis of satellite data by a team of researchers with the National Aeronautics and Space Administration's Global Hydrology and Climate Center in Huntsville, Alabama.

The weather patterns in Africa bring in warm air from the Atlantic Ocean which collides with mountains, producing thunderstorms year-round.

Another lightning hotspot is the Himalayas, where the mountainous *topography* (地形) forces the convergence of air mass from the Indian Ocean. The North and South Poles, however, rarely experience thunderstorms and, therefore, have almost no lightning.

In the United States, lightning researchers estimate that 22 million lightning flashes strike the ground each year. The most lightning prone region is Florida, which has, on average, 12 flashes of lightning per square kilometer per year.

"To produce lightning you need thunderclouds. To produce thunderclouds you generally need heat and moisture and both are plentiful in Florida," said Vladimir Rakov, an electrical engineer and lightning expert at the University of Florida in Gainesville.

The Florida Peninsula is sandwiched between the Gulf of Mexico and the Atlantic Ocean. Sea breezes from both sides move inland as the day progresses, colliding over the warm landmass, explained Hodanish.

"If it wasn't for the sea breezes colliding with each other, the lightning activity would be significantly less," he said. Such is the case, he added, with southeastern Texas, which has similar weather to Florida, but just one coast.

Throughout the United States, lightning frequency generally decreases from the southeast to the northwest. Pockets of intensity include the Rocky Mountains, where the topography causes thunderstorms to form with regularity in the summer months.

Summertime is when most lightning occurs in the United States, but it can also strike during winter months in a rare thunder snowstorm.

As for the question as to whether or not lightning can strike the same place twice, Rakov says that the answer depends on what kind of place that is.

Statistically, he said, during cloud-to-ground lightning, the channel of discharge is merely looking for a place on the ground, which is a random act assuming the ground is flat and geologically uniform.

For example, Rakov says that one square meter of terrain in a flat Florida field gets hit by lightning once every 100 millennia, thus if that area gets hit, it would not be hit for another 1,000 human generations, which he considers in all practical purposes to be never.

The reality, however, is that the ground is not uniform and lightning is attracted to certain ground features and not to others. "From a lightning point of view, yes, it does strike the same place many times, particularly if it is a tall structure," said Rakov.

Hodanish said studies have shown that tall structures such as New York's Empire State Building get struck several times in a single storm. "Typically the tallest objects get hit the most frequently," he said.

Lightning Safety

To avoid death by a flash of lightning, the National Weather Service recommends following the "30/30" rule. When lightning is seen count the time until thunder is heard. If it is 30 seconds or less, seek shelter immediately and stay there for at least 30 minutes after the last rumble of thunder is heard.

"Typically, people go out and resume activity too quickly and end up getting hit," said Hodanish.

Covered picnic shelters, tents, and convertibles even with the roof up are not safe. Rakov said that shelter should be a substantial building such as a home or inside a car with a metal roof.

"If neither are available, make yourself as small a target as possible," he said. "Never stand near tall trees, metal fences, or water." Metal objects are popular targets of lightning and power lines can conduct lightning surges over large distances, he added.

According to Hodanish, who is working on a scientific paper about a man who was struck and killed by the first lightning flash of a storm on top of Colorado's Pikes Peak, "for some, no matter what precautions you take, you can be the unfortunate victim of lightning."

- N 1. As the second largest weather-related killer, lightning is noticeable.
- NG 2. In Florida, among the different natural disaster death rates, the death rate from lightning is the highest.
- N 3. The injury and death rates correlate with the place where there are the most lightning strikes.
- Y 4. That the lightning casualty rates rank higher than its lightning flash density in Colorado is due to the fact that many Coloradoans participate in outdoor activities.
5. The electrical charges are divided as a result of the ^(collision) separation of updrafts and downdrafts.
6. The two forms of lightning are intra-cloud lightning and cloud-to-ground flash.
7. There are two lightning hotspots. One is central Africa, the other is the Himalayas.
8. In spite of similar weather condition, the lightning activity in southeast Texas is less than Florida.
9. Studies have indicated that typically the tallest objects are more subject to lightning strike.
10. According to Hodanish, lightning is fatal for some unfortunate people.
not possible

Passage Two

Meeting the Real Doctor Dolittle

Explaining science seems to come naturally to Charlotte Uhlenbroek. The young BBC presenter has become a rapidly-emerging star because her passion for wildlife bubbles over on the small screen. And she's every bit as enthusiastic in person. She clearly relished her latest project, *Talking with Animals*, investigating the wildly different ways in which animals communicate with one another.

The subject is nothing new to Uhlenbroek. She spent four years studying the vocalizations of chimps in the forests of Tanzania as a PhD student, so her latest series and accompanying book is a natural extension of her previous research. For *Talking with Animals*, Uhlenbroek and her film crew traveled the world to discover how

and why animals pass on information. "Every creature communicates at some level, even single-celled organisms. I am interested in how complex social behavior can be mediated without language," she says.

The methods most animals use to communicate don't approach the sophistication of human language, but some employ highly ingenious methods in the most unforgiving surroundings.

Smelly signals

The longevity of the scent turns out to be crucial, because a single iguana's (鬣蜥) territory covers an area of several square kilometers. It could take days for a fellow member of the species to stumble upon these smelly messages, but the iguanas' ultraviolet vision helps them cope with this problem too. The scent marks absorb UV light, so they stand out to other iguanas like neon lights at a fairground. By smelling and tasting the marks, they are even able to tell the identity and sex of the iguana that left it.

Elephants similarly have to keep in touch across large distances. Even when they are out of hearing range of one another, in forests or the great *savannah* (大草原) of East Africa, they are often spotted moving in the same direction. Sometimes they're seen to freeze in their tracks and move their feet up and down, which leads some scientists to believe they have sensitive cells in their feet. Such cells would enable them to pick up low frequency vibrations from the ground, waves that travel distances of up to 16 km.

Much better understood are the low frequency airborne rumbles that elephants use to communicate. These noises are in the infrasound frequency range, which is below our threshold of hearing, even if you're standing right next to an elephant, as Uhlenbroek discovered. "I heard very little at first, but gradually my ears started to tune into sounds on the very edge of my senses. You only notice it when it stops," she says.

The rumbles can travel up to 2 km, and within that range an elephant can tell the difference between the sounds made by 100 of its peers, this is useful for males to keep tabs on females as a typical family will roam across an area covering between 15 and 2,000 square kilometers.

Dolphin signatures

While the tone of an elephant's voice is low, dolphins recognize each other using high-pitched signature whistles. The way in which they modify their whistles demonstrates how intelligent they are. "Dolphins seem to have an amazing ability to employ the same kinds of mental processes that we do, and we are now starting to see that in dolphins in the wild," says Uhlenbroek.

When one dolphin whistles its signature, another dolphin is able to mimic it in response. Scientists who followed a group of male dolphins over a period of three years found that their high-pitched whistles gradually became more and more similar, until the trio were calling out with a single shared call. It is thought that the dolphins may have been doing this to demonstrate to rival males that they were together as a team, and therefore a force to be reckoned with.

But sound isn't the only means of underwater communication that scientists have stumbled upon. It's well known that some fish, such as *rays* (鳐鱼), give their prey a sharp electric shock. But highly sensitive electrodes have now revealed that others use it for more than a means of attack. "Some fish use electricity to communicate by using very weak currents. Scientists picked up these tiny currents, and found the pattern of these pulses was changing in a regular pattern," says Uhlenbroek.

Electrical communication, used by the South American knife fish and elephant-nose fish of Africa, evolved from the use of electricity for navigation. The *nocturnal* (夜间活动的) knife fish, for example, is able to tell the difference between rocks and other fish in its surrounding by sensing distortions in the three-dimensional electric field, using thousands of *tiny receptors* (感受器) scattered over its body.

Really talking with animals

Similarly, researchers studying the mormyrid fish of Gabon managed to get males of the species to respond to computer-generated electrical signals. When the signal matched that of a female of the same species, the male produced bursts of electricity 10 times faster in order to convey his willingness to mate.

Scientists are increasingly using technology to play Dr Dolittle and communicate directly with animals. Uhlenbroek did this with the colorful *satins* (缎子) bowerbirds of Australia. Male bowerbirds perform an elaborate

dance, spreading their wings and fanning out their tails, to impress potential mates. The way the female responds can either calm the male or act as a come-on. Researchers built a robot which mimicked the females' movements and when Uhlenbroek took the controls, she found that even the *jerky* (不平稳的, 笨拙的) robot was good enough to fool the male. "It was an extraordinary feeling that he really was responding to the way I made the robot move. The male just fell madly in love with it and in the end we had to prise him off."

Such deception isn't confined to man—even animals can fool each other. Take the giant cuttlefish, whose tentacles are fringed with a filmy skirt. When cuttlefish gather to breed, the larger males guard their mates by sending a series of stripes pulsing across their skins. It's no idle threat, since cuttlefish are ready and willing to attack rivals with their sharp beak. The smaller males wouldn't stand a chance in a straight fight, so instead they curl up their tentacles and make their skin pale and mottled. In doing so they impersonate the females, and slip past the large male guards to mate.

"It appears that the small male cuttlefish get past because they look like females, but we can't swear the others care one way or the other," says Uhlenbroek. "Nonetheless, it seems there are a few instances where animals go all out to deceive other members of their own species."

Not every creature can fall victim to lying, of course, so there must be a mechanism to prevent it. "You can see why communication has to be constantly evolving because, as soon as there's deception, there's got to be a counter force in order for other animals to avoid being deceived, simply because they can't all go down that path," she continues.

The evidence that many animals change their behavior in response to the environment is clear when you listen to common types of bird. "Many birds adopt sounds from the environment, such as mobile phone ring tones, so at some level we are influencing them. We are a part of their sound environment, so they borrow bits of their sound from us."

Far more sophisticated behavior has been observed in the prairie dogs of Arizona. These small *rodents* (啮齿动物) live in *burrows* (洞穴) and they're hunted by a great number of *predators* (食肉动物), from coyotes, hawks, foxes and badgers to dogs and cats. Ranchers kill them, because they can carry plague that kills their cattle. As a defense, prairie dogs have evolved vocalizations for these predators and have a specific alarm call for each one.

The latest findings show that these animals can describe individual people in detail, down to their size, the color of their clothes, and even whether they are carrying a gun. Their calls help other prairie dogs spot intruders on the horizon, and may be the tip of the iceberg. Uhlenbroek concludes: "If small rodents show such extraordinary sophistication, what might we find animals are saying to each other in future?"

- Y 1. Uhlenbroek, who is famous and popular as a BBC presenter, is good at explaining science.
- NG 2. Uhlenbroek's latest project *Talking with Animals* is loved best by young people.
- N 3. Uhlenbroek's previous research is irrelevant to the program *Talking with Animals*.
- Y 4. The methods used by most animals to communicate are less complicated than those by human beings.
5. Smell helps iguanas to keep their fairly large territory because their scent can absorb UV light.
6. Human beings can't hear the rumbles that elephants use to communicate because it is infrasound.
7. According to Uhlenbroek, dolphins have the amazing ability to communicate with some kind of frequency.
8. For some fish, electricity is not just a means of attack, but also a means of communication.
9. In order to mate, the smaller male cuttlefish pretend to be a female to cheat the large male guard.
10. There is obvious proof that many animals have to change their behavior to respond to the environment.

Passage Three

City

Over the course of the last 100 years, millions of people said farewell to their rural roots and moved *en masse* ([法]全体,一起) to the city.

At the turn of the 20th century there were just a handful of cities across the globe that could boast a popu-

lation of more than one million. But in ~~the decades that followed~~ cities grew at a staggering rate as people flocked to them to find work and improve ~~their lives~~.

By 1950, cities housed approximately 300m people in the developing and developed world, but their growth since has been truly staggering. Cities now house one billion people in the industrialized world and at least two billion in developing nations—more than half the world's population.

The age of the mega-city

The full ramifications are only just becoming apparent. Vast cities are appearing in every major country around the world, many of which are cursed with rampant crime, appalling environmental pollution and astonishing levels of urban poverty.

More than half the population of most cities in the developing world live in squalid shanty-towns, and conditions are set to get worse. By 1990, the world's 100 largest cities held 540m people, and the world's 20 largest cities each had a population of more than 10m.

By 2015, some estimates suggest up to 75% of the world's population will live in urban zones, while the unluckiest among us will cram into a series of enormous new cities which are emerging to house up to 40m people at a time. The age of the mega-city is finally arriving.

Location is everything

Our distant ancestors led pretty simple lives. Until around 10,000 BC all humans were hunter-gatherers and lived a nomadic life searching endlessly for food.

~~It was the development of agriculture that enabled humans to settle down and live~~, first as farmers and then as villagers. Around 3500 BC small towns began appearing in Mesopotamia, surrounded by defensive high walls and irrigated fields that fed the town's population.

In the thousand years that followed, when agriculture had become more of a science and crop yields had risen, fewer people were needed to produce food. People took other jobs, became wealthier and more and more chose to live in towns close to shops and markets.

This worked well for centuries. Towns flourished and eventually one of the grandest, Rome, became the world's first city of more than one million people around 100 AD.

Although the fertile lands surrounding Rome could have adequately fed the city, the Roman people began importing food and became reliant on long supply chains. When Gaiseric the Vandal began withholding vital North African grain supplies from Rome in 455 AD, the city's power went into steep decline. The Dark Ages that ensued saw people deserting cities across Europe and returning to the countryside.

Make it accessible

It was not until around 1200 AD that people began flocking back to the cities, a trend encouraged by the growth of iron technology and further improvements in agriculture. Cities and towns began to spring up across Europe and Asia.

The main factor which determined where a city was founded, according to Derek Keene, Director of the Center for Metropolitan History at the University of London's Institute of Historical Research, was simple geography. "Was it accessible to people who wished to trade there or bring in supplies?"

However, there were other important considerations. "A city might be successfully founded in a desert if there was a need for a staging post or an interchange on a trade route," he says. Then there were the simple demands of a ruler's ego, or a need to defend people against invaders. Finally there was one other major motivating force: religion. "A sacred site attracts many visitors who require service," Keene says.

In medieval times, cities grew to exploit trade routes. Bruges in Belgium became rich by weaving wool from Britain, while Florence in Italy built a small empire also based on wool.

Trade helped Constantinople become the most powerful city in Europe during the Middle Ages. The gateway between the Eastern Mediterranean, India and Africa on one side and Europe on the other, Constantinople played a crucial role in the trade of Eastern riches for Western wool and heavy iron products.