科技英語听力教材

Science Report

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北京外语音象教材出版社

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前　言

本书是中国高校外语电教协会计划编写的英语听说训练读物之一，全书第一部分共收集24篇美国的科学报导，并根据外国电台的录音记录、译注。本书所收集的材料题材广泛，内容新颖、浅易，并有一定的趣味性，可供高等院校非英语专业学生、科技工作者和自学英语者训练听力之用。为了便利广大学习者，特請外籍数师重新灌制了录音（60分钟磁带两盒，每盒定价4.50元），由北京外语音像教材出版社连同本书一起发行。

限于水平，译注中错误之处在所难免，希得到同志们的批评指正。另外有少数人名和地名特别是非英语国家的人名和地名系按音记录的，但无从查证，很可能记得不准。在这些名词的后面我们加上"※"号，請读者注意。

译注者

1985年6月

1

When humans first began planting crops for food, birds were there to eat the crops. Since that time long ago, farmers have searched for ways to keep birds out of their fields so that the crops would not be damaged or lost.

Now a farmer in the State of California has found a new way to prevent birds from eating his crops. The farmer Bart Fisher has designed a kind of kite that frightens most birds away. Kites usually are made of cloth, paper or some other light material that is stretched over thin pieces of wood. A kite can be almost any shape as long as it can catch the wind. It is tied to one end of the strong piece of string, then it can be released into the air to fly on the wind. A person holds on to the string to keep control of the kite so that it does not blow away on the wind. Mr. Fisher tried a number of ways to keep birds especially horned larks from eating his crops of lettuce, melons and tomatoes. None of the method he tried worked well. So he thought of using kites to scare the birds. He made the kites in the shape and colour of hawks, birds that kill other birds for food.

Mr. Fisher began by putting six meter long pipes into the ground in and around his fields. Then he put a bent piece of

steel into the top end of each pipe so that the steel rod could turn in circles around the top of the long pipe. He then tied a long piece of string to each kite. He tied the other end to the steel rods sticking out of each pipe. This permitted the kites to fly like birds over the field, moving with the wind as its speed and direction changed.

Mr. Fisher has been using the kites over his fields for more than a year now. He says that crop-eating larks stay away from the fields for about the first four days after he has put up the kites. But after about four days, the braver birds start coming to the edge of the field to eat. Mr. Fisher said that after several more days they will begin going further into the fields for food. He said that although the kites become less effective as time goes by, the birds will never feed directly under one of the hawk kites. Mr. Fisher uses one kite for about seven hectares of farm land. He said that in the past, he employed man with guns to shoot at the birds. By using kites, Mr. Fisher has reduced his costs and his crop losses.

New words and Expressions

1. California[kæli'fɔ:njə] n. 加利福尼亚（州）[美国]
2. frighten['fraitn] vt. 吓唬
3. stretch[stretʃ] vt.vi.n 伸长；拉紧
4. string[striŋ] n 线；绳子
5. horned [hɔ:nd] adj. 有角的
6. lark [lɑ:k] n 云雀. horned lark 角目雀
7. lettuce ['letis] n 莴苣
8. melon ['melən] n 甜瓜；西瓜
9. scare [skɛə] vt. n. 惊恐；使恐慌
10. hawk [hɔ:k] n. 鹰，隼
11. bend [bend] vt. vi. n. （弄）弯曲；弯曲
12. rod [rɔd] n 竿；长棒
13. hectare ['hekta:] n 公顷
14. release [ri'li:s] vt. 释放；解除. n 释放

一

当人类开始种植谷物为食时，鸟类就到地里啄食庄稼。很久以来，为保护庄稼不受损失，农民们就一直在寻找方法不让鸟类进入庄稼地。

现在，美国加利福尼亚州有个农民找到一种能防止鸟类啄食谷物的新方法。这个农民名叫巴特·费舍。他设计了一种能把鸟吓跑的风筝。风筝是用布、纸或其它一些轻质材料蒙在细木条骨架上制成。风筝的形状并无一定，只要能兜风就行。它的一端栓在结实的细线上，放线时风筝就乘风而起。人捏紧线团，控制住风筝，因此它不会随风刮走。

费舍先生曾试过不少办法，使鸟类特别是云雀不吃他种的莴苣、甜瓜和西红柿。所有方法的效果都不好，因此他就想起用风筝来把鸟吓跑。把风筝造得和鹞的颜色和形状一样，因为鹞是靠猎取其它鸟类为食的。

费舍先生在他的庄稼地里面和周围插了一些六米长的管子。在每根管子的顶端装了一根弯钢杆。钢杆可绕长管子的顶端旋转。然后他把每个风筝都拴了一根长线，每一根长线的另一端系在每根管子中伸出的钢杆上。这样风筝就好像鸟一样随着风速和风向的改变而在田野上空飘动。

费舍先生如今已用他制造的这种风筝在他的庄稼地上空使用了一年多。他说在他放风筝的头四天，吃庄稼的云雀不敢在田野啄食。但四天以后，胆子大些的鸟儿就飞到地边

啄食了。费舍先生说，再过几天他们就会进一步飞到庄稼地内寻找食物。他说虽然随着时间的推移，风筝的作用减弱了，但是鸟儿不敢直接在每一个鹞形风筝下面啄食。费舍先生用一只风筝就可以保护大约七公顷的农田。他说过去专门雇人持枪打鸟。使用风筝后，费舍先生减少了开支，也减少了农作物损失。

2

American scientists have discovered evidence that some genes change healthy cells into cancer cells. The scientists at Johns Hopkins University in Baltimore have discovered how these genes may be able to do this. They believe these genes are normally inactive turned-off genes. Somehow they are turned on and they change normal cell activity. Scientists say that learning more about these genes could be a major step for understanding cancer and its causes. In the latest study, Dr. Andrew Fineberg and Dr. Burtt Volkostein* took normal cells and cancer cells from the colon, lungs and liver of five cancer patients. They examined three genes in each of the normal and cancerous cells. Two of the genes they studied are responsible for making blood. The other gene makes growth hormones. These genes are normally inactive for turned off. Scientists say this is shown by a covering of chemicals. The scientists found that these genes were turned off in the normal cells they studied. But in the cancer cells of four of the five patients the same three genes did not have the chemical covering. These genes in the cancer cells were turned on and were free to invade other cells. The sciensists said this idea of inactive genes being turned on may explain some unusual things

about cancer. Cancer cells can move from one body organ to invade another. This is an unusual thing for normal adult cells to do, but it is common in the normal cells of developing unborn embryos. Some cells in embryos invade other cells to develop the body's different organs. After the animal is born these genes are present throughout its life but are normally turned off. But if these genes were turned on again they could cause a normal cell to invade other cells as cancer cells do. Also genes for fast growth normally are active only during the time an animal is an embryo. If these genes were turned back on in adult cells, they might create unusual growth such as the growth seen in cancer cells. But scientists do not know if these inactive genes(are)turned on to cause cancer or are turned on when cells become cancerous. They say more research is needed to find out why and how these genes change.

New Words and Expressions

1. gene [dʒi:n] n. 基因
2. cell [sel] n. 细胞
3. cancer ['kænsə] n. 癌
   cancerous ['kænsərəs] adj. 癌的
4. Baltimore ['bɔ:ltimɔ:] n. 巴尔的摩［美国城市］
5. inactive [in'æktiv] adj. 不活动的
6. colon ['koulən] n. 结肠
7. lung [lʌŋ] n. 肺
8. liver ['livə] n. 肝
9. hormone ['hɔ:moun] n. 荷尔蒙；激素
10. adult ['ædʌlt] adj. 成熟的；成年的 n. 成年人
11. invade [in'veid] vt. 侵入
12. embryo ['embriou] n. 胚胎
13. unusual [ʌn'ju:ʒuəl] adj. 异常的

二

美国科学家们发现某些基因可以把正常的细胞转化为癌细胞。约翰霍普金斯大学的科学家已经了解这些基因是如何进行这种转化的了。他们认为这些基因在正常状态下是一种不活动的、关闭性的基因。在某种情况下他们变为开放性。它们能改变正常细胞的活动性。科学家们说：更多地了解这种基因对了解癌症及其产生的原因会向前迈进重大的一步。在最近的研究中，安德鲁·法因伯格博士取出五名癌症患者的结肠、肺和肝中的癌细胞和正常细胞。他们化验了每一个正常细胞和癌细胞的三个基因。有二个基因是管造血的。另一个基因则制造生长激素。这些基因是正常非活性的，是关闭的。科学家们说这可以由存在一层化学物隔膜来说明。科学家们发现在他们所研究的细胞中，这些基因是关闭的。但在五个病人中，四个人的癌细胞里，同样的三个基因都沒有化学物隔膜。在癌细胞中这些基因是开放的。它们可自由地扩散到别的细胞中去。科学家们说，非活性基因开放的概念可能说明一些有关癌症的异常情况。癌细胞能从人体的一个器官扩散到其它器官。这对正常成熟的细胞来说是不正常的。但对发育中胚胎的一般细胞来说，则是常事了。胚胎中有些细胞侵入到另外的细胞以发育人体的不同器官。动物出生后在其整个生命过程中，这些基因都是存在的，但一般地都呈关闭状态。如果这些基因被重新开放，它们就会使一个正常细胞

象癌细胞那样侵入其它细胞。同时，只有动物处在胚胎阶段时，促使身体快速成长的基因才一般是活性的。如果这些基因转移到成熟细胞，它们就会和癌细胞一样引起不正常的肿瘤。但科学家们还不知道是非活性基因开放而引起癌症呢还是细胞癌变后才引起开放。他们说，为了找出这些基因为什么会改变和如何改变，还需要作进一步的探讨。

3

Recent studies in a number of industrial countries show that continuing loud noise is a threat to people's hearing and health. The studies were done in the United States, Britain, Sweden, Japan and other countries. They blamed modern civilization and technology for the growing problem. These noises include jet airplane sounds, loud music and even the common sounds found in most homes and at work. Doctors have known for a long time that extremely loud noises can cause hearing damage or loss.

But two years ago members of America's National Academy of Sciences called for more careful investigation of effects of noise on health and not just hearing. They said existing studies showed that noise appears to seriously damage the human body's blood circulation system—the heart and blood vessels. At least forty studies have linked noise to increases in blood pressure. In one of these studies Ernest Peterson of the University of Miami School of Medicine investigated the effects of commonly heard noises on monkeys. The monkeys developed continuing high blood pressure after only nine months of hearing noises heard every day by people in their homes and at work. Scientists from the University of Oregon studied children

who attended the school near the busy Los-Angeles California International Airport. Each day the children heard the extremely loud sounds of jet airplanes taking off and landing. The study showed that these children had higher blood pressure than children who attended schools in quieter areas. A study at the University of Wisconsin showed that common noises in the home cause increased tension. These noises include the sounds of loud voices and such labor saving devices as electric food mixers and washing machines. Studies in Britain and the United States seem to show that persons who live in especially noisy areas suffer more mental problems. These persons also generally need more medical care than persons who live in quieter areas. However a number of scientists said that all of the studies done so far have failed to consider related information such as age, social and economic conditions and a number of other things. They said this information must be included in any further studies of the effects of noise on human health.

New Words and Expressions

1. Sweden ['swi:dn] n. 瑞典
2. blame [bleim] vt. 指摘；责备
3. extremely [iks'tri:mli] adv. 极（端地）；非常
4. academy [ə'kædəmi] n. 研究院；专科院校
   the academy of sciences 科学院
5. investigation [investi'geiʃən] n. 调查；调查研究
6. circulation [sə:kju'leiʃən] n.循环；运行
   blood circulation system 血液循环系统
7. vessel ['vesl] n. 管；器皿
   blood vessel 血管
8. Miami [mai'æmi] n. 迈阿密［美国港市］
9. monkey ['mʌŋki] n. 猴；猿类
10. Oregon ['ɔrigən] n. 俄勒冈（州）［美国］
11. Los Angeles [lɔs'ændʒil:z] n. 洛杉磯［美国］
12. Wisconsin [wis'kɔnsin] n. 威士康星（州）［美国］
13. tension ['tenʃən] n. 紧张
14. mental ['mentl] adj. 精神的；智力的

三

一些工业发达国家的最新研究结果表明，噪音如果很大并且持续不断，对人的听觉和健康是一种威胁。这些研究是美国、英国、瑞典，日本以及其它一些国家进行的。他们认为现代化与技术进步使得这类问题日益严重。这些噪音包括喷气飞机的轰鸣声，大音量的音乐演奏声，甚至在大多数家庭中或工作場所中的一般声响。医生们很早就知道特别大的噪音会导致人们的听觉损伤或丧失。

两年前美国科学院一些院士们呼吁不仅要认真研究噪音对听觉而且还有它对人体健康的影响。他们说，现有的研究表明，噪音会严重地损害人体血液循环系统——心脏和血管。至少有40项研究结果表明噪音与人的血压增高有关。其中一项研究是迈阿密医科大学的欧内斯特·彼德逊先生进行的，他研究了一般听到的噪音对猴子产生的影响。这些猴子在噪声环境中只呆了9个月就患了持续的高血压症，而这种噪声是人们每天在家庭中或工作場所中都听到的。

俄勒冈大学的科学家们研究了繁忙的洛杉磯加里福尼亚国际机場附近一所学校学习的儿童们的情况。这些孩子每天都听到喷气飞机起落的轰鸣声。这份材料表明，这些儿童血压要比位于较安静地区学校学习的儿童高。

威士康星大学的研究结果表明，一般家庭噪音会增加人的紧张不安的情绪。这些噪音包括大声说话以及食物混合