

# 通信科技英语

## 文选

南京大学大学外语部 主编



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# 通俗科技英语文选

第三十一辑

南京大学大学外语部 主编

商 务 印 书 馆

1993年·北京

TONGSÚ KĒJÌ YĪNGYŮ WÉNXUǎN

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**商 务 印 书 馆 出 版**

(北京王府井大街36号 邮政编码 100710)

新华书店总店北京发行所发行

河北省香河县第二印刷厂印刷

ISBN 7-100-01357-7/H·422

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1993 年 11 月第 1 版

开本 787×1092 1/32

1993 年 11 月北京第 1 次印刷

字数 99 千

印数 1 100 册

印张 4 1/4

定价: 2.40 元

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## Diet and Brain

Humans are in danger of evolving into big beasts with tiny brains. A bad diet could increase body weight at the expense of brain capacity. But if we eat the right food, we could increase our intellectual capabilities. The best brain food contains polyunsaturated fats — the sort found in cod, mackerel, freshwater salmon, crabs, and shellfish, as well as liquid oils such as vegetable and sunflower oil. Fats of this sort build brain cells, whereas, the rest of the body needs protein.

The bigger the savannah animals grow, the smaller their relative brain size. A research team has studied 42 species to show how this works. Big savannah animals have tiny brains: a rhino's brain is a mere 12cm across and the brain of an ox accounts for just 0.08 per cent of its body weight.

From the need to compete with lions and other hunters of the plains, we evolved two legs because we needed to see over the tall grass of the savannahs.

However, some scientists challenge that theory. They say the big brain was not selected by breeding, but grew as a result of diet. Man did not evolve on the savannahs, competing for food with other carnivores, but thrived on the nutrition-rich shores of lakes, rivers, and seas. His fishy diet built his brain and that in turn gave man a great advantage in the survival stakes. Chimpanzees, sup-

posedly closely related to man, did not have the benefit of a fishy diet. They have a brain capacity of a mere 400ml compared with the human capacity of 1,500ml.

In terms of brain power, humans were most closely related to dolphins, which evolved on the land, eating the same food as seaside man.① Lakesides and seashores provided man with an abundance of specialised chemical needs for brain growth. The diet of savannah animals did not provide these nutrients.

## 词 汇

**polyunsaturated** [ˌpɒliʌn'sætʃə-  
reitɪd] *a* 多种不饱和的

**cod** [kɒd] *n* 鳕鱼

**mackerel** ['mækrəl] *n* 鲱鱼, 马  
鲛鱼

**salmon** ['sæmən] *n* 鲑鱼

**savannah** [sə'vænə] *n* (亚)热带  
的大草原

**rhino** ['raɪnəu] *n* 犀牛

**account for** (总共)占

**breeding** ['brɪdɪŋ] *n* (动物的)生  
育, 繁殖

**carnivore** ['kɑ:nɪvɔ:] *n* 食肉动  
物

**stakes** [steɪks] *n* 竞赛; 竞争

**ml** (= millilitre(s) ['mɪlɪ,lɪtrə(z)])  
毫升

## 注 释

- ① In terms ... power, humans were ... to dolphins, which evolved ... land, eating the same ... man.

·本句为主从复合句。which 引导的是非限定性定语从句, 修饰 dolphins; 其中, eating the same ... 为现在分词短语, 作状语修饰动词谓语 evolved。



## 参考译文

### 饮食与大脑

人类正处于演化成体大脑小的动物的危险之中。饮食不当会导致体重增加而脑功能减弱。不过,如果我们摄入的食物对头,就能提高智能。最佳的健脑食物含有多种不饱和脂肪——这类脂肪存在于植物油、葵花油等流体油类中;以及鳕鱼、马鲛鱼、淡水鲑鱼、螃蟹和贝壳类动物中。这类脂肪可提供脑细胞生长所需的营养,而身体其他部分则需要蛋白质。

草原动物长得越大,其相应的大脑体积就越小。一个研究小组已研究了42种动物来证明这种看法。大的草原动物只有非常小的大脑:犀牛大脑的直径仅有12厘米,公牛的大脑仅占它身体重量的0.08%。

由于与狮子及其他草原食肉动物竞争的需要,人类祖先逐步进化出两条腿,因为他们需要越过草原上高高的草丛来观察周围的东西。

然而,有些科学家却对这种理论提出异议。他们认为人类发达的大脑不是自然选择的产物,而是靠饮食滋补的结果。人类不是在草原上与其他食肉动物竞争而进化来的,而是靠食用湖滨、河岸、海边的营养丰富的食物而成长起来的。鱼类食物给人类提供了大脑所需的营养,而这又给予人类在生存竞争中以极大的有利条件。被认为很接近于人类的黑猩猩未曾得益于鱼类食物,因此现在黑猩猩的脑容量只有400毫升,而人类的脑容量则有1500毫升。

就脑功能而言,海豚的大脑最接近于人类的大脑。海豚原是在陆地上进化而成的,和居住在海边的人类吃同样的食物。湖滨、海边曾向人类提供了丰富的、大脑发育所必需的特殊的化学物质,而草原动物所吃的食物中则不含这些营养。

俞凤娣 译注 木木 校

## Alcohol's Place in Diet

Alcoholic beverages, used in moderation, can have a place in the healthful diet. Wine, especially, has managed to make itself nearly indispensable to serious cooks and serious lovers of food.

In cooking, wine is typically added to flavor a dish, not lend an extra kick. The alcohol boils off at 173 degrees Fahrenheit, considerably less than water's boiling point of 212 degrees. What remain are those elements in the wine that give it (and your dish) characteristic flavor.

The same is true of fortified wines and spirits. A seafood bisque, for example, might contain sherry and brandy or Cognac. Since both are subjected to heat (the brandy might be flamed in the cooking pot along with shrimp shells), no alcohol remains. The calorie consequences are low, the flavor consequences deliciously high.

Taken straight from the bottle, wine does contain some nutrients, including potassium and other minerals, but certainly not enough to drink it for that reason alone.① Sorry.②

The same can be said of beer. Typically, a 3<sup>1</sup>/<sub>2</sub>-ounce glass of dry red or white table wine has 75 to 85 calories. Beer has 140 to 150 calories in a 12-ounce can (light beer has 95 or so).

The same can't be said of spirits, however. Hard liquor ranks right at the top of the empty calorie list, and excess drinking of liquor crowds out "good" calories

that contain essential nutrients. If you drink a lot, you have to be even more vigilant about your diet than otherwise.

The calorie count of hard liquor depends on its proof. A jigger ( $1\frac{1}{2}$  ounces) of 80 proof liquor has 97 calories. A jigger at 100 proof contains 124 calories.

Add to that the calorie cost of the mixers: four ounces of cola is 50 calories; of ginger ale, 36, and of Collins mix, 55 or so. The way to minimize mixer calories is to switch to club soda or water, or buy artificially sweetened versions, if that suits you.

Besides all this, alcohol steals niacin and thiamine needed by the brain to process glucose, an important fuel. That is one way alcohol is bad for your body. There are others: Alcohol always is processed by the stomach ahead of food, because it does not need to be digested.

A drinker stands the best chance of resisting intoxication if his stomach is full, or if he eats as he drinks. High fat snacks, unluckily enough, are best at slowing alcohol absorption. Since drink in reasonable amounts is an appetite stimulant, you will be more tempted than ever to go for the cracker spread with pâté, or a palmful of salted nuts.

The obvious solution is to drink less. Make your cocktails go further by moving to drinks with more flavor and diluting them more. For instance, white wine spritzers get all the press, but three ounces of a dry red with some club soda is more flavorful and can leave you feeling as if you have had a drink.

Aromatic wines also pay big dividends in flavor.

White vermouth is about 105 calories per small glass, but it has a definite taste, more able to stand up to club soda. Red vermouth contains 165 calories a serving.

Veteran tipplers who need to watch their intake fill their glass with mixer as it's emptied. Start with a Scotch and soda, drink a little, then refill to the top with club soda; this is easy to nurse for long periods, and less deleterious than wobbling back to the bar for a fresh one.

## 词 汇

**beverage** ['bevərɪdʒ] *n* 饮料(如汽水、茶、酒等)

**indispensible** [,ɪndɪs'pensəbl] *a*

必不可少的,必需的

**fortified wine** ['fɔ:tɪfaɪd waɪn]

加度葡萄酒(一般加白兰地酒)

**bisque** [bɪsk] *n* (用鱼、虾、蛤等

调制的)一种浓羹

**Cognac** ['kɔ:njæk] *n* 法国科涅

克地方产的白兰地酒

**be subjected to** (易)受到...,遭到...

**nutrient** ['nju:triənt] *n* 营养品,

营养物

**potassium** [pə'tæsjəm] *n* 钾

**proof** [pru:f] *n* (酒精、酒类的)

强度标准,标准酒精度

**jigger** ['dʒɪgə] *n* (容量为1½盎司

的配酒用)计量杯

**ginger ale** ['dʒɪndʒə eɪl] 姜汁啤酒

**niacin** ['naɪəsɪn] *n* 烟酸

**thiamine** ['θaɪəmi(:)n] *n* 硫胺,维生素 B<sub>1</sub>

**glucose** ['glu:kəʊs] *n* 葡萄糖

**stand the best chance of** 极有可能...

**intoxication** [ɪn,tɒksɪ'keɪʃən] *n*

醉酒,喝醉

**pâté** ['pæteɪ] *n* [法语]浆状物

**dilute** [daɪ'lju:t] *vt* 冲淡;稀释

**get all the press** 获得(报刊上的)好评

**aromatic** [æərəʊ'mætɪk] *a* 芳香的,有香味的

**dividend** ['dɪvɪdend] *n* 效益

**vermouth** ['vɜ:məθ] *n* 苦艾酒

**stand up to** 经得起

**deleterious** [,delɪ'tɪəriəs] *a* (对身心)有害的,有毒的

**wobble** ['wɒbl] *vi* 摇摇摆摆,晃动

## 注 释

- ① Taken straight from the bottle, wine does contain ..., including potassium ..., but certainly not ... alone.

does 为助动词,放在谓语动词 contain 前是表示强调; including 引导的同位语短语作 nutrients 的同位语。but 引导的是一个省略了的并列句。

- ② Sorry.

这是一个省略句。原句为: I am sorry to say that.

## 参考译文

### 酒在饮食中的地位

含酒精的饮料,若饮用适度,在有益于健康的饮食中可占一席之地。尤其是葡萄酒,对于那些考究烹调的厨师和考究饮食的美食家们几乎是不可或缺的。

葡萄酒在烹调中通常是用来给菜肴调味,而不是给菜肴添加刺激性味道。酒精的沸点是华氏 173° (相当于摄氏 78.3°——译者注),比水的沸点华氏 212° (相当于摄氏 100°——译者注)要低得多。酒精达到沸点挥发后,所剩下的是那些使葡萄酒(以及你的菜肴)具有独特口味的成份。

用加度葡萄酒或者烈性酒来烹调,其效果也是一样的。比如,一道海鲜浓羹中可以加入掺白兰地(或法国科涅克白兰地)的雪利酒,由于海鲜和酒都要受热(白兰地酒在锅中可能与虾壳一道受明火烧灼),菜肴中所含的酒精便荡然无存。结果菜肴的热含量降低,但其鲜美程度却有所提高。

直接饮用葡萄酒的确能获得一些营养成分,如钾及其他一些矿物质。但很遗憾,酒中这些营养成分含量太低,显然不值得为此而去饮酒。

啤酒的情形也与葡萄酒一样。一般说来，一杯  $3\frac{1}{2}$  盎司佐餐用的无甜味葡萄酒，无论是红的，还是白的，其热含量均为 75 至 85 卡。容量为 12 盎司的一听啤酒则含 140 至 150 卡热量（淡啤酒的热含量大约是 95 卡）。

不过烈性酒的情形则不同。在影响人体获取正常热量方面，以烈性酒为最。过量饮用的烈酒会挤占那些含有人体必需营养成分的“有益”含热物质的位置。如果你饮酒很多的话，你得比不饮酒时更加注意你饮食的质与量。

烈酒中的热含量取决于其标准酒精度。一标准杯（ $1\frac{1}{2}$  盎司）80 标准酒精度的烈酒，含 97 卡热量。一标准杯 100 标准酒精度的烈酒含 124 卡热量。

再说一下混和饮料的热含量：同样是 4 盎司，可乐含 50 卡；姜汁啤酒含 36 卡；果汁水酒，约含 55 卡。要降低混和饮料的热含量，可以掺苏打水或水。你若喜欢的话，也可以买些含有糖精的混和饮料。

除了上面说到的，酒精还会中和烟酸与硫胺，而大脑正需要这两种化学物质以加工处理葡萄糖——一种重要的人体燃料。这是酒精危害身体健康的一个方面。此外还有其他方面的危害：酒精总是先于食物为人胃所处理吸收；因为它无需消化过程。

饮酒者只有在饱腹饮酒时，或者边吃边饮时才最不容易喝醉。而能最有效地延缓酒精的吸收的是含高脂肪的快餐食品，这真不凑巧。由于适度饮酒可以开胃，你会越发想吃一些涂满浓酱的脆饼，或大把的椒盐果仁。

很明显，解决这些问题唯一的办法就是少喝酒。喝鸡尾酒，应更进一步多掺调味饮料，并调得淡一些。例如白葡萄甜汽酒颇受好评，但来上 3 盎司掺苏打水的无甜味红葡萄酒，你会觉得口味更足，而且还可以使你觉得似乎确实喝过了酒。

加香料的葡萄酒也别具风味。白苦艾酒每小杯大约含 105 卡热量，但其酒味特足，可以掺大量苏打水。红苦艾酒每份含热量为 165 卡。

那些喝酒需要节制的老饮客们喝空酒杯后常斟上混和饮料。一开

始先斟上威士忌苏打水，喝掉一点后再用苏打水把酒杯添满，这样做可以喝很长时间，比起醉醺醺而步履蹒跚地走到柜台前再要一杯，害处要小得多。

陈海 译注 一平 校

## Food-borne Illnesses

More than a century after Louis Pasteur showed that microbes in milk make people sick, food-borne illnesses are alive and thriving.

Consumers can reduce the risk of food poisoning by cooking meat well and washing knives, cutting boards and any other surfaces touched by raw meat. But that's not always enough. In the last decade alone, food poisonings traceable to salmonella have doubled—and new pathogens are still being discovered. Only a few years ago, medical sleuths found that the culprits they sought in a string of outbreaks were common bacteria long assumed to be harmless.

For most people, the unpleasant symptoms are transient. But each year about 9,000 Americans die of food poisoning. The most frequent victims are elderly people with weakened immune systems and the very young. So far, salmonella has gotten the worst press. But other common contaminants of meat, poultry, dairy products and fish include yersinia, escherichia coli, toxoplasma and campylobacter. In fact, campylobacter, long thought to be only a cause of livestock disease, now rivals salmonella as the leading cause of human food poisoning.①

It's blamed for some 4.1 million cases a year — exceeding the annual toll of salmonella by about 100,000.

The latest worry is listeria, a bacterium that usually causes no worse than mild flulike symptoms. But on rare occasions it can also trigger meningitis, infect the blood and cause abortions and miscarriages. The fatality rate can reach 40 percent, even with treatment. Worse, listeria lives nicely at refrigerator temperatures. The germ got its first real publicity in 1985, when Jalisco cheese made from listeria-contaminated milk caused 28 deaths and 20 stillbirths in Los Angeles.

The U.S. Department of Agriculture reports that about 37 percent of chicken carcasses carry salmonella—a figure that has been relatively constant for more than a decade. Four percent of all beef and 12 percent of all pork is also contaminated. But chickens are coprophagous—a polite way of saying they eat each other's droppings. Thus, salmonella is a common inhabitant of their intestinal tracts, and it rarely is a bother to them.

That is not the case for humans, though, for during slaughtering the birds' entrails occasionally tear, allowing the bacteria to spread. Spraying the carcasses with chlorinated water cuts down, but doesn't eliminate, the bacteria. Moreover, current screening relies heavily on visual signs of infection—yet bacteria, of course, can't be seen with the naked eye.

It has been proposed that chickens be regularly tested at random for microbial and chemical contaminants. Other experts suggest tackling the problem even before they arrive at the slaughter-house. The boldest plan is to



feed them harmless microbes that will colonize in the birds' guts and wipe out disease-causing bacteria without any undue effects on consumers.

Early trials suggest the approach might work — possibly for livestock as well. But taking precautions at home will always be essential. There are simply too many opportunities for food to spoil between the barnyard and your dinner plate. As every microbiologist since Pasteur well knows, never judge a microbe by its size.②

## 词 汇

**pathogen** ['pæθədʒən] *n* 病原体  
**transient** ['trænzɪənt] *a* 一时的;

瞬间的

**immune** ['ɪmjʊ:n] *a* 免疫的

**salmonella** [ˌsælmə'nelə] *n* 沙门氏菌

**contaminant** [kən'tæmɪnənt] *n* 污染物

**yersinia** [jə:'sɪniə] *n* 耶尔森氏菌

**escherichia coli** [ˌeʃə'rikiə kəʊˌlaɪ] *n* 大肠杆菌

**toxoplasma** [ˌtɒksə'plæzmə] *n* 弓形体

**campylobacter** [ˌkæmpɪləʊˈbæktə] *n* 曲杆菌

**rival** ['raɪvəl] *vt* 与...相匹敌; 比得上

**listeria** [lɪs'tɪəriə] *n* 李司忒氏菌

**trigger** ['trɪɡə] *vt* 引起, 激起

**meningitis** [ˌmenɪn'dʒaɪtɪs] *n* 脑膜炎

**carcass** ['kɑ:kəs] *n* (宰后的动物的) 躯体

**coprophagous** [kə'prɒfəɡəs] *a* 吃粪的

**intestinal** [ɪn'testɪnəl] *a* 肠的

**entrails** ['entreɪlz] *n* 内脏; 肠

**chlorinated** ['klɔ:rɪneɪtɪd] *a* 加了氯的

**screening** ['skri:nɪŋ] *n* 筛选; 甄别

## 注 释

- ① In fact, campylobacter, ..., now rivals ... as the leading cause of ... poisoning.

句中, long thought to be ... 为过去分词短语, 作非限定性