



Lesson 41 Training elephants

resentful [rɪ'zentfl]

adj. 怨恨的

resentful adj. feeling angry and upset about sth. that you think is unfair

怨恨的

a resentful look / expression / voice

resentful of / about / at ...

She felt resentful at not being promoted.

They seemed to be resentful of our presence there.

At first I felt very resentful about losing my job.

resent v. to feel angry or upset about a situation or about sth. that sb. has

done, esp. because you think that it is not fair 怨恨

I bitterly resent your criticism.

Does she resent my being here?

“sens” / “sent” = to feel

resent “re” = back v. 怨恨

resentful adj. 怨恨的

resentment n. 怨恨

sensation n. 轰动；感觉

sensational adj. 轰动性的



sense n. 感觉，知觉；意义

sensitive adj. 敏感的

sensual adj. 肉体上的；性感的

sentiment n. 情绪，感情

sentimentality n. 多愁善感

assent “as” / “ad” = to v. & n. 同意，赞成

consent “con” = together v. & n. 同意，赞成

consensus n. 共识

dissent “dis” = apart n. 异议，反对；v. 持异议，不同意

presentiment “pre” = before n. 预感，凶兆

assign [ə'sain]

v. 分配；指派

assign v. 1. give sth. to sb. as a share of work to be done or of things to be used 分配，安排

assign sb. sth.

The teacher has assigned each of us a holiday task.

assign sth. to sb.

The two large classrooms have been assigned to us.

The teacher assigned a different task to each of the children.

assign v. 2. to provide a person for a particular task or position 指派



assign sb. to do sth.

British forces have been assigned to help with peacekeeping.

assign sb. to sth.

Two senior officers were assigned to the investigation.

They've assigned their best man to the job.

The first essential in elephant training is to assign to the animal a single mahout who will be entirely responsible for the job.

“sign” = to mark

assign “as” / “ad” = to v. 分配；指派

assignment n. 分配；任务，作业

signature n. 签字

signify “fy” / “fac” / “fic” = make v. 表示，表明

significant adj. 重要的；有意义的

significance. n. 重要性；意义

consign “con” = together v. 委托，托付；托运

consignment n. 委托，托付；托运，托运的货物

design “de” = down v. 设计；计划；n. 设计，设计图；计划，方案

designate v. 指定，委任；命名

designation n. 委任；名称，称呼

resign “re” = again v. 辞职；顺从

resignation n. 辞职，辞呈；顺从



calf [kɑ:f] [kæf]

n. 小牛或其他大型动物的幼崽

calf n. (pl calves) the baby of a cow, or of some other large animals, such as an elephant, a giraffe, a whale, a seal, a dolphin etc. 小牛或其他大型动物的幼崽（如小象，小长颈鹿，小鲸鱼，小海豹，小海豚等）

One young calf especially enjoyed raising a turtle to the surface with his snout and then shoving him across the tank like an aquaplane.

foal n. 小马，小驴

piglet n. 小猪

lamb n. 小绵羊

kid n. 小山羊

fawn n. 小鹿

cub n.（狐、熊、狮、虎等的）幼兽

kitten n. 小猫

puppy n. 小狗

chicken n. 小鸡

duckling n. 小鸭

gosling n. 小鹅

larva n. 幼虫

infant n. 婴儿



underline [ʌndə'laɪn]

v. 在下面划线；强调，使突出

underline v. 1. to draw a line under a word, sentence, etc. = underscore
在下面划线

The names of the winners are underlined in red.

underline v. 2. to show that something is important = underscore 强调，
使突出

This tragic incident underlines the need for immediate action.

emphasize / stress v. 重读；强调，使突出

The shop assistant looked puzzled and Harry repeated the word, slowly
stressing each syllable.

The report emphasizes the importance of improving safety standards.

I must stress that everything I've told you is strictly confidential.

put / lay emphasis / stress on sth.

We should put greater emphasis on employee development.

We would lay less stress on 'facts and figures' and more on a good
memory, on applied psychology, and on the capacity of a man to get
along with his fellow-citizens.

accentuate v. 重读；强调，使突出

Her dress was tightly belted, accentuating the slimness of her waist.



highlight v. 用荧光笔标出重点；强调，使突出

Your resume should highlight your skills and achievements.

subservient [səb'sɜ:vɪənt]

adj. 屈从的，顺从的

subservient adj. too willing to obey other people 屈从的，顺从的

subservient to ...

The press was accused of being subservient to the government.

But animals of this age do not easily become subservient to man, and a very firm hand must be employed in the early stages.

submissive adj. 服从的，顺从的

They never become submissive like dogs and horses.

obedient adj. 服从的，顺从的

an obedient child

He was always obedient to his father's wishes.

compliant adj. 服从的，顺从的

She was much naughtier than her compliant brother.

law-abiding adj. 守法的

law-abiding citizens

soothe [su:ð]



v. 使平静，安慰，抚慰

soothe v. to make someone feel calmer and less anxious, upset, or angry

使平静，安慰，抚慰

Lucy soothed the baby by rocking it in her arms.

soothing adj. making you feel calm 安慰性的，令人镇定的

I put on some nice soothing music.

Her words had a soothing effect.

console v. to make someone feel better when they are feeling sad or disappointed 安慰

The following day, however, the doctor consoled him by telling him that his chances of being able to leave hospital in time for New Year celebrations were good.

What you said about George was very consoling.

He nodded and put a consoling arm around her shoulders.

reassure v. to say or do sth that makes sb. less frightened or worried 安慰，使放心

They tried to reassure her, but she still felt anxious.

The doctor reassured him that there was nothing seriously wrong.

The teacher gave him a reassuring smile.

It's reassuring to know that problems are rare.

epithet ['epɪθet]



n. 称呼，称号，绰号

epithet n. a word or short phrase used to describe sb., esp. when praising them or saying sth. unpleasant about them 称呼，称号，绰号

In ‘Alfred the Great’, ‘the Great’ is an epithet.

The film is long and dramatic but does not quite earn the epithet ‘epic’.

“epi”= upon / to / besides / among

epithet “epi”= upon “thet”= put n. 称呼，称号，绰号

epitaph “epi”= upon “taph”= tomb n. 祭文，悼词，墓志铭

epigraph “epi”= upon “graph”= write n. 碑文

epitome “epi”= to “tome”= cut n. 梗概，缩影；典型，典范

epilogue “epi”= besides “logue”= speech n. 后记，跋；收场白

episode “epi”= besides “sode”= coming in n. 插曲，轶事；（电视或广播节目的）一集

epidemic “epi”= among “dem”= people n. 传染病的流行

Two main techniques have been used for training elephants, which we may call respectively the tough and the gentle.

be used for ...

This increases the expense of government, and reduces correspondingly the amount of economic resources that could be used for developing the country.



Some hotels supply boiled water on request and this can be used for drinking, or for brushing teeth.

respectively adv. in the same order as the things you have just mentioned
各自，分别

The cups and saucers cost £5 and £3 respectively.

respective adj. 各自的，分别的

They each excel in their respective fields.

After the party we all went back to our respective homes.

respectable adj. 体面的，正派的

a respectable citizen / family

We often read in novels how a seemingly respectable person or family has some terrible secret which has been concealed from strangers for years.

respected adj. 受敬仰的，有名望的

a highly respected surgeon

respectful adj. 尊敬的，尊重的

You should be more respectful of other people's points of view.

respecting prep. 关于.....

= concerning / regarding

造句：在这篇有关科学家的文章中，作者特别尊重那些不但是体面正派的公民，而且在各自的领域中都深受敬仰的专家。



In the article respecting scientists, the writer is particularly respectful of those who are not only respectable citizens, but respected experts in their respective fields.

The former method simply consists of setting an elephant to work and beating him until he does *what is expected of him*.

set sb. to work (doing sth.): to make sb. do work for you, esp. when they do not want to do this 让某人工作（尤指对方不情愿的情况下）

Don't complain that you're bored, or Dad will set you to work.

I've set them to work clearing out the garage.

expect ... of sb. 对某人希望.....

I can't finish this job by Friday you expect too much of me.

The school expects a lot of its students.

Apart from any moral considerations this is a stupid method of training, for it produces a resentful animal who at a later stage may well turn man-killer.

apart from / aside from 1. except for 除了

Apart from a few words, I do not know any French at all.

apart from / aside from 2. besides 除了.....（还.....）

Apart from an interesting-looking carved dagger, the box was full of crockery, much of it broken.

Your behavior reflects on me, and I can't do my job if you're constantly



humiliating me.

Constantly? Aside from today, give me one example.

apart from / aside from 3. separate from 脱离开.....

He must, for example, perceive an egg as a simple single solid shape, quite apart from its significance as food, or from the literary idea that it will become a bird.

consideration n. [C] thing that must be thought about or taken into account, reason 考虑到的事, 原因, 因素

economic / commercial / environmental / practical considerations

Several considerations have influenced my decision.

Political rather than economic considerations influenced the location of the new factory.

method of / for (doing) sth.

... if there is any effect of noise upon mental health, it must be so small that present methods of psychiatric diagnosis cannot find it.

There is no quicker method of disposing of patients than by giving them what they are asking for, ...

Those planning a trip to remote areas, or intending to live in countries where drinking water is not readily available, should know about the various possible methods for making water safe.

may / might / could well ... used to say that sth. is likely to happen or is



likely to be true （某事）可能（发生或是真的）

Another patient might equally well complain that her neighbours were combining to slander her and persecute her, and yet one might be cautious about believing this statement.

... and the railway of the future may well be the 'hovertrain', ...

Over the years one may well become an authority on one's hobby and will very probably be asked to give informal talks to little gatherings and then, if successful, to larger audiences.

turn v. become 变成（不加冠词）

He has turned traitor.

He used to be a teacher till he turned writer.

She was betrayed by a childhood friend who turned government informant.

The gentle method requires more patience in the early stages, but produces a cheerful, good-tempered elephant who will give many years of loyal service.

cheerful adj. willing to do whatever is necessary in a happy way 乐意的，肯干的

a cheerful worker

I'll do everything I can to help you, she said with a cheerful grin.



service n. [U or pl.] the work that sb. does for a person or organization,
esp. over a long period 工作

Jack was given a gold watch after 25 years of loyal service.

an award for her services to the community

The first essential *in elephant training* is to assign to the animal a single mahout who will be entirely responsible for the job.

essential n. [C] fundamentally necessary element or thing 要素，要点，必需品

A knowledge of French is an absolute essential.

the essentials of English grammar

food, water, and other essentials

assign sb. to sth.

The first essential in elephant training is to assign to the animal a single mahout who will be entirely responsible for the job.

Elephants like to have one master *just as dogs do*, and are capable of a considerable degree *of personal affection*.

It was not forced upon them by the survival competition; they could have caught and lived on prey without using poison, just as the thousands of non-poisonous snakes still do.

affection n. a feeling of liking for a person or place 感情，柔情，喜爱

affectionate adj. 有感情的，充满柔情的



They can be friendly and affectionate towards humans, but they lead mysterious lives of their own as well.

There are even stories of half-trained elephant calves who have refused to feed and pined to death *when by some unavoidable circumstance they have been deprived of their own trainer.*

And then, when they were dead, the carnivores, like the sabre-toothed cats and the giant wolves, came out to feed and suffered exactly the same fate.

After all, all living creatures live by feeding on something else, ...

It tires not, nor does it boast of its power; but belongs to the air, travelling it may be six thousand miles to and from its northern nesting home, feeding its flown young as it flies, ...

pine v. be very unhappy, esp. because sb. has died or gone away 痛苦, 伤心（尤指因生离死别）

Six months after he left, she was still pining.

do sth. by mistake / accident

I succeeded by good fortune.

By mere negligence she had seriously wounded the feelings of Maggie.

Such extreme cases must probably be taken with a grain of salt, but they do underline the general principle that the relationship between elephant and mahout is the key to successful training.



take sth. with a grain / pinch of salt: to doubt the truth or value of sth. 怀疑.....的真实性或价值，有保留地相信或接受.....

If I were you, I'd take his advice with a grain of salt.

Most of what he says should be taken with a pinch of salt.

the relationship between teacher and student

the conflict between mother and son

Primarily, the banker-customer relationship is that of debtor and creditor ...

be / hold the key to ... 是.....的关键

Working well as a team is the key to success .

a discovery that may hold the key to our understanding of the universe

造句：这种极端的例子虽不可全信，但是却的确突出了这一基本原则：
夫妻关系是成功婚姻的关键。

Such extreme cases must probably be taken with a grain of salt, but they do underline the general principle that the relationship between husband and wife is the key to successful marriage.

The most economical age to capture an elephant for training is between fifteen and twenty years, for it is then almost ready to undertake heavy work and can begin to earn its keep straight away.

be ready to do sth. 可以.....

The contract will be ready to sign in two weeks.



The computer is now set up and ready to use.

keep n. [U] the cost of providing food and a home for someone 生活费

We only need two rooms and our keep.

earn sb.'s keep 赚回生活费

It's time you got a job and started earning your keep.

Does that old car still earn its keep?

straight away adv. immediately 立刻，马上

They can't pay me straight away.

I knew straight away it was a bad injury.

But animals of this age do not easily become subservient to man, and a very firm hand must be employed in the early stages.

hand n. a person skilled in a particular action or pursuit 某方面的能手

He is a good hand with a gun.

She was a fabulous hand at embroidery.

It was easy to see that he was an old hand at the job.

The captive elephant, *still roped to a tree*, plunges and screams every time a man approaches, and for several days will probably refuse all food *through anger and fear*.

plunge v. to move, fall, or be thrown suddenly forwards or downwards

猛冲或突然落下

He plunged toward the door and wrenched it open.



She lost her balance and plunged 100 feet to her death.

The order to abandon ship was given and hundreds of people plunged into the icy water.

through prep. 因为, 由于.....

We missed the plane through being held up on the motorway.

The vase was broken through carelessness.

Sometimes a tame elephant is tethered nearby to give the wild one confidence, and in most cases the captive gradually quietens down and begins to accept its food.

tame adj. a tame animal or bird is not wild any longer, because it has been trained to live with people 驯化的

tether v. to tie an animal to a post so that it can only move around within a limited area 把动物拴住

He tethered his horse to a tree.

quieten v. to become calmer and less noisy or active, or to make sb. or sth.

do this (使) 平静些, 安静些

quieten a screaming baby

The chatter gradually quietened.

quieten down

Quieten down and get ready for bed!

The next stage is to get the elephant to the training establishment, a



ticklish business which is achieved with the aid of two tame elephants roped to the captive on either side.

get v. to make sth. or sb. move to a different place or position, esp. with some difficulty

I couldn't get the disk out of the computer.

Could you help me get the wardrobe up the stairs?

We must get food and emergency aid into the area as quickly as possible.

establishment n. [C] a business or other organization, or the place where it operates 公司、机构或其场所

a / an educational / financial / religious establishment

a top class training establishment

ticklish adj. 1. sensitive to tickling 怕痒的

I'm terribly ticklish.

ticklish adj. 2. a ticklish problem, situation, or task is difficult and needs to be dealt with carefully 难解决的，需小心处理的

a ticklish question

in a ticklish situation

business n. 1. [U] things that need to be done or discussed (需要做或讨论的) 事

Okay, let's get down to business.

It's none of your business.



business n. [sing.] (usually with an adj. 常与形容词连用) (often derog. 常作贬义) a matter, an event or a situation 事情, 情况

Arranging a trip abroad is a time-consuming business.

These killings are a dreadful business.

That plane crash was an awful business.

When several elephants are being trained at one time, it is customary for the new arrival to be placed between the stalls of two captives whose training is already well advanced.

at one time 1. if sb. does two or more things at one time they do them at the same time, esp. if this is difficult or impressive 同时

This word processor allows you to work with two documents at one time.

You're trying to do too many things at one time.

at one time 2. at a time in the past but not now 过去, 以前

At one time she wanted to be a nurse, but the thought of working at night put her off.

customary adj. according to custom, usual 合乎习俗的, 依照习俗的, 习惯上的

it is customary (for sb.) to do sth.

Is it customary to tip hairdressers in this country?

In some cultures it is customary for the bride to wear white.

In my village, it is customary for a girl to take her mother's name.



arrival n. [C] person or thing that arrives 到达的人或物

Late arrivals must wait in the foyer.

We're expecting a new arrival in the family soon.

stall n. an enclosed area in a building for an animal such as a horse or cow 牲畜棚中的一栏

All the cattle had been moved into stalls and we stood to lose little.

It is then left completely undisturbed with plenty of food and water so that it can absorb the atmosphere of its new home and see that nothing particularly alarming is happening to its companions.

leave v. if you leave sth. in a particular condition you do not touch it, move it or act to change it in any way 使或让.....处于某状态

You can leave the window open.

Leave your sister alone.

It's better to leave some things unsaid.

He got up slowly leaving the lunch unfinished.

Please excuse me if I have left any of your questions unanswered.

absorb v. to take sth. into the mind and learn or understand it 理解，接受，熟悉

It's a lot of information to absorb all at once.

It took me several days to absorb the fact of her death.

They spent a week in Paris just absorbing the atmosphere.



alarming adj. making you feel worried or frightened 令人惊恐的

an alarming increase in violent crime

The rainforest is disappearing at an alarming rate.

When it is eating normally, its own training begins.

The trainer stands in front of the elephant holding a long stick with a sharp metal point.

Two assistants, mounted on tame elephants, control the captive from either side, while others rub their hands over his skin to the accompaniment of a monotonous and soothing chant.

mount v. 1. go up, ascend 登上

He mounted the platform and addressed the crowd.

mount v. 2. to fix sth. into position on sth., so that you can use it, look at it or study it 将某物固定住（以备使用、展示或研究）

Triple gun-decks mounted sixty-four bronze cannon.

mount v. 3. to increase gradually 逐渐增加

This modern faith in medicines is proved by the fact that the annual drug bill of the Health Services is mounting to astronomical figures and shows no signs at present of ceasing to rise.

mount v. 4. get onto or put sb. onto a horse, etc. for riding（使）骑上马等

He quickly mounted his horse and rode away.

He mounted the boy on the horse.



The policemen were mounted on black horses.

accompaniment n. 伴奏；伴随物

to the accompaniment of sth. 1. while a musical instrument is being played 在.....的伴奏之下

They performed to the accompaniment of guitars.

The girls sang to the accompaniment of a piano.

to the accompaniment of sth. 2. while sth. else is happening or can be heard 在.....发生时，在.....声中

She made her speech to the accompaniment of loud laughter.

Franco left the chamber to the accompaniment of loud applause.

chant n. words or phrases that a group of people shout or sing again and again 一群人反复唱或喊叫的词语，口号

The team's supporters sang a victory chant.

This is supposed to induce pleasurable sensations in the elephant, and its effects are reinforced *by the use of endearing epithets, such as 'ho! my son', or 'ho! my father', or 'my mother', according to the age and sex of the captive.*

be supposed to do sth. 1. used to say that sth. is believed to be true by many people, although it might not be true or you might disagree 据说，据称

The castle is supposed to be haunted.



Mrs. Carver is supposed to have a lot of money.

be supposed to do sth. 2. 应该；本该

What time are you supposed to be there?

The meeting was supposed to take place on Tuesday, but we've had to postpone it.

(A) He's supposed to go to the meeting.

(B) He wants the woman to give George the message.

(C) He doesn't know why George can't attend the meeting.

(D) He forgot to deliver a message.

W: Do you know if George is coming to the meeting?

M: Oh, no, I was supposed to tell you that he is sick and can't come.

Q: What does the man mean?

Answer: (D) He forgot to deliver a message.

sensation n. 1. a feeling that you get from one of your five senses, esp. the sense of touch 感觉（尤指触觉）

One sign of a heart attack is a tingling sensation in the left arm.

sensation n. 2. state of great surprise, excitement, interest, etc. among many people 轰动

cause a sensation

The first tests on the Solent in 1959 caused a sensation.

reinforce v. to make a feeling, an idea, etc. stronger 加强，强化



The experience reinforced my sense of loss.

Success in the talks will reinforce his reputation as an international statesman.

endearing adj. making someone love or like you 惹人喜爱的

Shyness is one of her most endearing qualities.

The elephant is not immediately susceptible to such blandishments, however, and usually lashes fiercely with its trunk in all directions.

be susceptible to sth. 1. 易患某病的

Scientists discovered that this particular variety of rabbit (and apparently no other animal) was susceptible to a fatal virus disease, myxomatosis.

be susceptible to sth. 2. 易受.....影响的

Young people are the most susceptible to advertisements.

James was extremely susceptible to flattery.

blandishment n. [usu pl] (fml.) flattering or coaxing words and actions 谄媚或哄骗的言语和行为

She resisted his blandishments.

lash v. to move or to move sth. quickly and violently from side to side 猛烈地甩动

The crocodile's tail was lashing furiously from side to side.

These movements are controlled by the trainer with the metal-pointed stick, and the trunk eventually becomes so sore that the elephant curls it



up and under seldom afterwards uses it for offensive purposes.

pointed adj. having a sharp end 尖的

a pointed chin

pointed teeth

for ... purposes 出于.....的需要

These gifts count as income for tax purposes.

For our purposes, we are concerned only with one kind of cost — the cost of managing and administering the business.

Lesson 42

Recording an earthquake

rigid ['rɪdʒɪd]

adj. 坚硬的，刚性的，僵化的，固执的

rigid adj. stiff or fixed, not able to be bent, moved, changed or persuaded

坚硬的，刚性的，僵化的，固执的

rigid plastic containers

Several colleges in our study have rigid rules about student conduct.

rigid adherence to old-fashioned ideas

rigidity n. [U] 坚硬，刚性，僵化，固执

the rigidity of the metal bar



the rigidity of the law on this issue

flexible adj. 易弯曲的，柔韧的，可变通的，灵活的

shoes with flexible rubber soles

A gymnast has to be flexible above all else.

Our plans are quite flexible.

Accountancy can offer flexible working hours.

flexibility n. [U] 柔韧性，灵活性

exercises to develop the flexibility of dancers' bodies

Employees expect flexibility in the workplace.

delicate ['delɪkət]

adj. 精密的，灵敏的

delicate adj. 1. able to measure very small changes 精密的，灵敏的

Weather-forecasters have extremely delicate equipment which helps them predict what the weather is going to be like.

But instruments far more delicate than that were needed if any really serious advance was to be made.

delicate adj. 2. (颜色、气味、味道) 淡的，柔和的

delicate fragrance

Despite the fact that the bottle is tinted a delicate shade of green, an observant visitor would soon notice that it is filled with what looks like a



thick greyish substance.

delicate adj. 3. 细致的，娇嫩的；易损坏的；需谨慎处理的

her delicate features

a baby's delicate skin

delicate china teacups

a delicate problem

The delicate surgical operation took 5 hours.

delicacy n. 1. [U] 精致，细致，娇嫩；谨慎处理

the delicacy of carving

the delicacy of her features

the delicacy of a child's skin

She handled the situation with great sensitivity and delicacy.

delicacy n. [C] 美味佳肴

If you lived in the Mediterranean, for instance, you would consider octopus a great delicacy.

seismometer [saɪz'mɒmɪtə]

n. 地震仪

“meter” / “metr” = measure

seismometer “seismo” = shake n. 地震仪

meter n. 仪器，仪表；米，公尺；v. 测量



metric adj. 米的; 公制的

diameter “dia” = across n. 直径

thermometer “thermo” = heat n. 温度表, 体温表

barometer “baro” = weight n. 气压计

voltmeter “volt” = 伏特 n. 电压表

speedometer “speed” = 速度 n. 速度表

milometer “mil” = mile n. 里程表

hygrometer “hygro” = wet n. 湿度计

perimeter “peri” = round n. 周长

geometry “geo” = earth n. 几何学

symmetry “sym” = together n. 对称

wriggle ['rɪɡl]

v. 扭动, 蠕动; 扭动前进

wriggle v. 1. to twist your body, or move part of your body, with small, quick movements 扭动, 蠕动

A large worm wriggled in the freshly dug earth.

Baby Martha was wriggling her toes in the sand.

wriggle v. 2. to move somewhere using short, quick twisting movements

扭动前进

The tunnel was low and dark, but she managed to wriggle through to the



other side.

wiggle v. 扭动

She wiggled her toes in the water.

Her hips wiggle as she walks.

waggle v. 扭动

His bottom waggles in a funny way when he walks.

She can waggle her ears.

wag v. 摆动

The dog's tail wagged.

The dog wagged its tail excitedly.

"You shouldn't have done that!" Mum said, wagging her finger at me.

longitudinal

[ˈlɒŋɡɪˈtʃuːdɪnəl]

adj. 纵向的

longitudinal adj. going from the top to the bottom of sth. 纵向的

the longitudinal axis

longitudinal stripes

a longitudinal section

“long” = long (长的)

longevity “ev” = time n. 长寿



longitude “itude” (抽象名词字尾) n. 经度

longitudinal adj. 纵向的

elongate “e” = out v. 使变长，拉长

elongation n. 拉长，延长

prolong “pro” = forward v. 延长时间

prolonged adj. 长期的，持久的

transverse ['trænzvɜ:s]

adj. 横向的

transverse adj. situated across sth. 横向的

a transverse beam

a transverse section

“ver” = turn

transverse “trans” = across adj. 横向的

versatile “tile” (形容词后缀) adj. 多才多艺的

vertical adj. 垂直的

adverse “ad” = to adj. 不利的，有害的

adversary n. 敌手，死对头

anniversary “anni” = year n. 周年纪念日

controversy “contro” = against n. 争论

controversial adj. 有争议的



converse “con” = together v. 交谈；adj. 相反的，逆的；n. 相反的事物

conversation n. 交谈

diverse “di” / “dis” = apart adj. 多种多样的

diversity n. 多样性；千变万化

diversion n. 偏离，转向；娱乐，消遣

extrovert “extro” = outside n. 外向的人

introvert “intro” = within n. 内向的人

inadvertent “in” = not “ad” = to adj. 无意的，非故意的

pervert “per” = thoroughly n. 性变态者；v. 滥用，误用；使堕落

reverse “re” = back adj. 相反的；v. 使反转；倒车；n. 相反的事物

subvert “sub” = under v. 颠覆，破坏

An earthquake comes like a thief in the night, without warning.

like a thief in the night: secretly or unexpectedly and without being seen

不知不觉地，偷偷摸摸地

The years, like a thief in the night, have stolen what you were.

Innocence slipped away from me like a thief in the night.

without warning: suddenly and with no signs that it was going to happen,

used about bad or dangerous things （贬义）突然，突如其来地

He blazed up without warning.

Then, without warning, her husband left her.

It was necessary, *therefore*, to invent instruments that neither slumbered



nor slept.

There is still much to discuss. We shall, therefore, return to this item at our next meeting.

Progress so far has been very good. We are, therefore, confident that the work will be completed on time.

instrument 1. 乐器

We have an old musical instrument.

instrument 2. 仪器，设备

His telescopic observations are justly immortal; they aroused great interest at the time, they had important theoretical consequences, and they provided a striking demonstration of the potentialities hidden in instruments and apparatus.

slumber v. (fml.) sleep, esp. peacefully and comfortably 睡眠（尤指睡得安稳而舒服）

The baby was slumbering peacefully.

Some devices were quite simple.

One, *for instance*, consisted of rods of various lengths and thicknesses which would stand up on end like ninepins.

on end 1. upright 直立，竖着

He placed the box on end and sat on it.

The reader's hair stands on end when he reads in the final pages of the



novel ...

on end 2. continuously 连续地

They argued for two hours on end.

Some plays are so successful that they run for years on end.

(A) She rearranged the chapters of her book.

(B) She assured him that the chapter was finished.

(C) She worked on the chapter for quite a while.

(D) She wasn't sure how to end the book.

W: Did Linda ever finish that introductory chapter?

M: I'm not sure. She's spent hours on end rewriting it.

Q: What does the man imply about Linda?

Answer: (C) She worked on the chapter for quite a while.

ninepins n. [U] a game in which you roll a ball at nine bottle-shaped objects to try to hit them so that they fall 九柱戏

When a shock came, it shook the rigid table upon which these stood.

If it were gentle, only the more unstable rods fell. If it were severe, they all fell.

Demographers expect it to take decades for China's birth rate to recover — by which time China may have become the first country in history to have grown old before growing rich. (The Economist)

Thus the rods, by falling, and by the direction in which they fell, recorded



for the slumbering scientist the strength of a shock that was too weak to waken him, and the direction from which it came.

in ... direction 向.....方向

Tony glanced in her direction and their eyes met.

The girls pointed in the opposite direction.

from ... direction 从.....方向

There was a loud scream from the direction of the children's pool.

But instruments far more delicate than that were needed if any really serious advance was to be made.

be to do (fml.) 的四种用法

1、打算, 想要

I'm to see her tomorrow.

The old farmhouse the family lived in was to be replaced by a new \$100,000 home.

2、命令

You're to be back by 10 o'clock.

No one is to leave the building.

You are to wait here in this room until I return.

3、能够

How am I to pay such a debt?

We Chinese people are not to be bullied.



The contemporary phenomenon of car worship is to be explained not least by the sense of independence and freedom that ownership entails.

4、应该

Such men are to be pitied rather than despised.

As soon as he had hung up, he went over to the workmen and told them that if a policeman ordered them to go away, they were not to take him seriously.

Some books are to be tasted, others to be swallowed, and some few to be chewed and digested.

— Francis Bacon

The ideal to be aimed at was to devise an instrument that could record with a pen on paper, the movements of the ground or of the table *as the quake passed by*.

be aimed at 1. 目的是.....

an energy program aimed at reducing our dependence on fossil fuels

The regulations are aimed at the prevention of accidents at work.

be aimed at 2. 针对.....

The criticism was not aimed at you.

The book is aimed at people with no specialized knowledge.

quake n. (informal.) earthquake 地震（通俗说法）

While I write my pen moves, but the paper keeps still.



With practice, no doubt, I could in time learn to write by holding the pen still while the paper moved.

no doubt 1. used for emphasizing that sth. seems certain or very likely 无疑，毫无疑问

No doubt she'll tell me everything when she's ready.

no doubt 2. used for showing that you accept sth. is probably true, but this does not change your opinion 的确，诚然

no doubt ..., but ...

No doubt she's very nice, but I just don't like her.

No doubt many will regard these as harsh words, but regrettably they are true.

in time 1. before the time by which it is necessary for sth. to be done 及时

The Titanic turned just in time, narrowly missing the immense wall of ice which rose over 100 feet out of the water beside her.

be in time to do sth.

Will I be in time to catch the train?

be in time for sth.

They hope to finish in time for a trade summit between America and the EU on May 28th.

The following day, however, the doctor consoled him by telling him that



his chances of being able to leave hospital in time for New Year celebrations were good.

in time 2. after a certain period of time, and esp. after a gradual process of change or development 逐渐地，慢慢地

In time, all Sam's money was paid back in this way.

In time, it became an accepted fact that the Cox brothers employed a conscientious ghost that did most of their work for them.

That sounds a silly suggestion, but that was precisely the idea adopted in some of the early instruments (seismometers) *for recording earthquake waves*.

adopt v. take over and have or use sth. as one's own 采纳，采取，采用

adopt a name / a custom / an idea / a style of dress

The system has worked so well, that it has been adopted in other countries like Denmark, Norway, Finland, and New Zealand.

For this reason there is no risk to the customer in the practice, adopted by some banks, of printing the customer's name on his cheques.

But when table, penholder and paper are all moving, how is it possible to write legibly?

penholder n. a holder or handle for a pen point 笔杆

legible adj. (of print or handwriting) clear enough to be read easily (印刷或字迹) 清楚的，易读的



The inscription was still legible.

legibly adv.

Please write more legibly.

illegible adj. difficult or impossible to read; not legible 字迹模糊难以辨认的

His handwriting is illegible.

He has a doctor's handwriting.

His handwriting is neat.

He has a teacher's handwriting.

The key to a solution of that problem lay in an everyday observation.

the key to ... 的关键

Such extreme cases must probably be taken with a grain of salt, but they do underline the general principle that the relationship between elephant and mahout is the key to successful training.

lie in ... 在于.....

The reason lies in its gravity.

the key to ... lies in ...

The key to success lies in diligence.

Why does a person standing in a bus or train tend to fall when a sudden start is made?

It is because his feet move on, but his head stays still.



A simple experiment will help us a little further.

Tie a heavy weight at the end of a long piece of string.

string n. [U & C] a strong thread made of several threads twisted together,
used for tying or fastening things 线绳

I need a piece of string to tie this package.

With the hand held high in the air, hold the string *so that the weight
nearly touches the ground*.

hold v. to put a part of your body into a particular position

She was holding her hand to her heart.

high / highly

He climbed high up the mountain.

It is highly confidential.

deep / deeply

He pushed the stick deep into the mud.

He was deeply moved.

wide / widely

Open your mouth wide.

He seems to be widely known here.

wide / widely

Open your mouth wide.

He seems to be widely known here.



sharp / sharply

We're meeting at one-thirty sharp.

turn sharp left / right

Interest rates have fallen sharply over the last few weeks.

The government has been sharply criticized for human rights violations.

low / lowly

The plane flew low.

We were, however, worried about our nearest neighbours, whose farm was low lying and who were newcomers to the district.

a lowly servant

If we were able to discover lowly forms of life like bacteria on another planet, it would completely change our view of ourselves.

Now move the hand to and fro and around but not up and down.

to and fro: if sb. or sth. moves to and fro, they move in one direction and then back again 来来回回地

The swing rocked to and fro.

I was disturbed by all the people walking to and fro outside the office.

back and forth: moving first in one direction and then in the opposite one
来来回回地

She swayed gently back and forth to the music.

from side to side: from left to right and from right to left 来来回回地



The curtains were swinging from side to side in the breeze.

The Cutty Sark rolled from side to side and it became impossible to steer her.

But as the paper moved from side to side under the pen point, its movement would be recorded in ink upon its surface.

up and down: if sth. moves up and down, it moves towards a higher position and then back to a lower position 上上下下地

The boat was moving up and down on the sea.

The earth trembled and the house seemed to be moving up and down.

It will be found that the weight moves but slightly or not at all.

Imagine a pen *attached to the weight in such a way that its point rests upon a piece of paper on the floor.*

Imagine their dismay when they found a beautifully-cooked wallet and notes turned to ash!

be attached to ... 1. 与.....连在一起

Lined up against the wall, there were long thin wires attached to metal spheres.

be attached to ... 2. 依恋.....

She was sentimentally attached to this house, for even though it was far too big for her needs, she persisted in living there long after her husband's death.



rest on / upon sth. 1. 靠在.....上面

She stood three feet high and her hands rested on her hip.

rest on / upon sth. 2. 基于.....

His fame rests more on his plays than on his novels.

Imagine an earthquake shock shaking the floor, the paper, you and your hand.

imagine sb. doing sth.

She could imagine dark-robed figures moving silently along the stone corridors.

In the midst of all this movement, the weight and the pen would be still.

in the midst of ... 1. while sth. is happening or being done 在.....发生期间

a country in the midst of a recession

She discovered it in the midst of sorting out her father's things.

She alone remained calm in the midst of all the confusion.

in the midst of ... 2. in the middle of a place or a group of things or people 在.....之间

in the midst of the crowd

He described it as 'a very agreeable situation located within two small hills in the midst of which flowed a great river'.

But as the paper moved from side to side under the pen point, its



movement would be recorded in ink upon its surface.

Please write in ink, not in pencil.

It was upon this principle that the first instruments were made, but the paper was wrapped round a drum which rotated slowly.

on / upon ... principle 依照.....理论或原则

The country is run on socialist principles.

The project worked on the principle that each person's experience was equally valuable.

in principle 1. 原则上 (但尚未考虑细节)

Politicians agree, in principle, so America and the EU have been trying to reach a deal which would eliminate the need to double-test many products.

in principle 2. 理论上 (但尚未发生)

In principle, the new software should make the accounting system a lot simpler.

Even assuming this to be in principle possible, it will not be achieved soon.

wrap sth. round / around sb. / sth.

Ella wrapped a thick coat around her shoulders.

He wrapped a bandage around my injured wrist.

drum n. sth. that looks like a drum, esp. part of a machine 鼓状物, 鼓状



零件

As long as all was still, the pen drew a straight line, but while the drum was being shaken, the line that the pen was drawing wriggled from side to side.

The apparatus thus described, *however*, records only the horizontal component of the wave movement, which is, *in fact*, much more complicated.

apparatus n. [U] = equipment 仪器，设备

With experience, and with improved apparatus, it is now possible not only to locate a shoal but to tell if it is herring, cod, or other well-known fish, by the pattern of its echo.

His telescopic observations are justly immortal; they aroused great interest at the time, they had important theoretical consequences, and they provided a striking demonstration of the potentialities hidden in instruments and apparatus.

thus adv. in this way, like this 以此方式，如此，这样

calculate the area of the triangle thus formed 计算这样形成的三角形的面积

Hold the wheel in both hands, thus. 用双手握住方向盘，像这样。

If we could actually see the path described by a particle, such as a sand



grain in the rock, it would be more like *that* of a bluebottle buzzing round the room; it would be up and down, to and fro and from side to side.

path n. line along which sb./sth. moves (人或事物移动的) 路线, 轨道

the moon's path round the earth

the path of a tornado

grain n. [C] a single very small piece of a substance such as sand or salt

小颗粒

a grain of salt / sand / sugar

bluebottle n. large buzzing fly with a blue body 青蝇

buzz v. to make a continuous sound, like the sound of a bee 发出嗡嗡声

Instruments have been devised and can be so placed *that all three elements can be recorded in different graphs.*

element n. one part or feature of a whole system, plan, piece of work etc.,

esp. one that is basic or important 要素, 重要部分

Honesty is a vital element of her success.

Besides ability, the other essential element in political success is luck.

graph n. a picture that uses lines or curves to show the relationship

between numbers or measurements that change 图, 图表, 曲线图

When the instrument is situated at more than 700 miles from the earthquake centre, the graphic record shows three waves *arriving one after the other at short intervals.*



one after the other = one after another used to talk about a series of similar things or events 一个接一个地

I'll eat chocolates one after the other until the box is finished.

Small businesses have been collapsing one after another.

interval n. 间隔的时间或空间

at ... intervals 每隔.....时间或空间

at weekly / 20 minute intervals

The trains run at hourly intervals.

The trees were planted at 20 meter intervals.

But suppose the earth could be covered with sensors spaced one foot apart, rising at one-foot intervals all the way to the top of the atmosphere.

Indeed, it may well be that those whose work is their pleasure are those who most need the means of banishing it at intervals from their minds.

The first records the arrival *of longitudinal vibrations*.

The second marks the arrival *of transverse vibrations which travel more slowly and arrive several minutes after the first*.

These two have travelled *through the earth*.

It was from the study of these that so much was learnt *about the interior of the earth*.

interior n. the inner part or inside of something 内部, 里面

The interior of the church was dark.



a house with a classical exterior and a modern interior

The third, *or main wave*, is the slowest and has travelled *round the earth through the surface rocks*.

or conj. (introducing a word or phrase that explains, or means the same as, another 表示一词语对另一词语的解释关系或为其同义词语) 即，亦即，或者说

a kilo, or two pounds

geology, or the science of the earth's crust

Cave exploration, or pot-holing, as it has come to be known, is a relatively new sport.

Lesson 43

Are there strangers in space?

Mercury ['mɜ:kjʊrɪ]

n. 水星

Mercury (水星，商贸之神墨丘利)

Venus (金星，美神维纳斯)

Mars (火星，战神马尔斯)

Jupiter (木星，众神之王朱庇特)

Saturn (土星，农神萨图恩)



Uranus（天王星，天空之神乌拉诺斯）

Neptune（海王星，海神尼普顿）

Pluto（冥王星，冥王普路托）

hydrogen ['haɪdrədʒən]

n. 氢

“gen” = 创造；生育

hydrogen “hydro” = water n. 氢

nitrogen “nitro” = nitre（硝石） n. 氮

gene n. 基因

gender n. 性别

general adj. 普遍的，一般的； n. 将军

generate v. 产生

generation n. 产生；一代

genetics “cs” = 学科 n. 遗传学

genesis n. 创世纪；起源，开端

genius n. 天才

genuine adj. 真正的

pregnant “pre” = before adj. 怀孕的

ingenious “in” = into adj. 机灵的，心灵手巧的

ingenuous adj. 坦率的，天真无邪的



congenial “con” = together adj. 情投意合的

congenital adj. (疾病) 天生的，先天的

megacycle ['megə'saɪkl]

n. 兆周

megacycle n. one million cycles 兆周

megahertz n. one million cycles per second, used especially as a radio-frequency unit 兆赫

“mega” = million “mega(lo)” = large

megacycle “mega” = million “cyc” = ring n. 兆周

megahertz “mega” = million “hertz” = 赫兹 (每秒一周) n. 兆赫

megabyte “mega” = million “byte” = 字节 n. 兆字节

megavolt “mega” = million “volt” = 伏特 n. 百万伏特，兆伏

megawatt “mega” = million “watt” = 瓦特 n. 百万瓦特，兆瓦

megaton “mega” = million n. 百万吨，百万吨级

megastore “mega” = large n. 大型商店

megastar “mega” = large n. 巨星，大明星

megalith “mega” = large n. 巨石

megaphone “mega” = large “phone” = sound n. 扩音器

megomania “megalo” = large “mania” = 狂热 n. 自大狂，妄自尊大

megapolitan “megalo” = large “polit” = city adj. 大都市的



interstellar [7ɪntə'stelə(r)]

adj. 星际的

interstellar adj. [only before noun] happening or existing between the stars 星际的

interstellar space

interstellar travel

interstellar communications

“stell” = star

stellar adj. 星星的

interstellar “inter” = between adj. 星际的

stelliform adj. 星形的

constellate “con” = together v. (使) 聚集

constellation n. 星座

“astr” / “aster” = star

astronomy “onom” = name n. 天文学

astronomical adj. 天文学的，天文数字的

astrology “(o)logy” = study n. 占星术

disaster “dis” = apart n. 大灾难

astronaut “nau” = ship n. 宇航员



astronautics “cs” = 学科 n. 航天学

asterisk n. 星号

asteroid “oid” = like n. (火星和木星轨道间运行的) 小行星

We must conclude *from the work of those who have studied the origin of life*, that *given a planet only approximately like our own*, life is almost certain to start.

“given + n.” (过去分词短语作条件状语) 如果有，假如有

Given *the chance*, I'd do it again.

Given *good health*, I hope to finish the work this year.

Given *the same treatment again*, he is sure to get well.

given prep. taking sth. into account 考虑到.....

Given his age, he's a remarkably fast runner.

given (the fact) that ...

Given that she is interested in children, I am sure teaching is the right career for her.

start v. to come into being, activity, or operation 产生，出现，开始

His illness started with a slight cough.

How did the war start?

Of all the planets in our solar system, we are now pretty certain the Earth is the only one on which life can survive.

of prep. used when comparing related things (用于比较时) 在.....中



I'm surprised that you of all people think that.

A flat tyre today of all days what bad luck!

He's the best looking of the three brothers.

But, of the vertebrates, unpredictable Nature selected only snakes (and one lizard).

Mars is too dry and poor in oxygen, Venus far too hot, and so is Mercury, and the outer planets have temperatures near absolute zero and hydrogen-dominated atmospheres.

poor in sth.: lacking sth. that is needed 缺乏.....

soil poor in nutrients

The country is poor in natural resources.

rich in sth.: containing a lot of sth. 富于....., 富含....., 盛产.....

a play rich in humor

China is rich in minerals.

Citrus fruits are rich in vitamin C.

Mars is too dry and poor in oxygen, Venus (is) far too hot, and so is Mercury, ...

outer planet n. any of the planets Jupiter, Saturn, Uranus, Neptune, and Pluto whose orbits lie beyond the asteroid belt 外行星, 带外行星

absolute zero n [U] -273°C or -460°F , the lowest temperature that is possible in theory 绝对零度



dominate v. to be the most important person or thing 是最重要的人或事物

The earthquake once again dominated the news.

Don't allow the computer to dominate your child's life.

My weekend was dominated by housework.

atmospheres which are dominated by hydrogen

➔ hydrogen-dominated atmospheres

silverware which is made by hands

➔ hand-made silverware

diseases which are related to stress

➔ stress-related diseases

enterprises which are owned by states

➔ state-owned enterprises

But other suns, *stars as the astronomers call them*, are bound to have planets like our own, and as the number of stars in the universe is so vast, this possibility becomes virtual certainty.

be bound to do ...: certain to do sth. 一定会.....

The weather is bound to get better tomorrow.

On our road ahead, we are bound to meet with difficulties.

be / feel bound to do ...: obliged by law or duty to do sth. 有责任或义务做某事



I felt bound to tell him the truth.

I am bound to say I disagree with you on this point.

vast adj. very large in area, size, quantity or degree (面积、体积、数量或程度) 巨大的

a vast area of forest

a vast crowd

Your help made a vast difference.

virtual adj. [only before noun] almost or very nearly the thing described, so that any slight difference is not important 实际上的，其实，几乎，差不多

The company has a virtual monopoly in this area of trade.

He married a virtual stranger.

When her husband had a stroke, she was given virtual control of the business.

But the chances are against it, and there is a virtual limit on how long we can hope to remain alive, however lucky and robust we are.

There are one hundred thousand million stars in our own Milky Way alone, and then there are three thousand million other Milky Ways, or galaxies, in the universe.

Milky Way n. the galaxy containing the solar system, visible as a broad band of faint light in the night sky 银河系



alone adv. without including anything else 单单，仅

These alone took sixteen months to build.

These books alone cost me 2,000 yuan.

Time alone will tell.

Persistence and determination alone are omnipotent. — Calvin

Coolidge

The third, or main wave, is the slowest and has travelled round the earth through the surface rocks.

Cave exploration, or pot-holing, as it has come to be known, is a relatively new sport.

So the number of stars that we know exist is now estimated at about 300 million million million.

嵌入式定语从句 (Embedded Attributive Clause)

这种定语从句的特征是：既修饰先行词又同时做另一个主谓结构的宾语。

Turning back down the main street, we quickened our pace and made our way rapidly towards the stream where we hoped the boatman was waiting.

There was no trace of fingerprints, but the inspector found a dirty red bundle that contained jewellery which the old lady said was not hers.

In this part of the cave, they could hear an insistent booming sound which



they found was caused by a small waterspout shooting down into a pool from the roof of the cave.

I hired a car the day after landing and bought a comprehensive book of maps, which I found most helpful on the cross country journey, but which I did not think I should need on the last stage.

estimate sth. at sth.

Organizers estimated the crowd at 50,000.

Although perhaps only 1 per cent of the life that has started somewhere will develop into highly complex and intelligent patterns, so vast is the number of planets, that intelligent life is bound to be a natural part of the universe.

develop into ...

Chicago developed into a big city in the late 1800s.

develop from ...

It's hard to believe that a tree can develop from a small seed.

So far away does my mother live that we hardly ever see her.

So great is our passion for doing things for ourselves, that we are becoming increasingly less dependent on specialized labour.

If then we are so certain that other intelligent life exists in the universe, why have we had no visitors from outer space yet?

outer space n. [U] the area outside the Earth's atmosphere containing the



stars and planets 外层空间

*First of all, they may have come to this planet of ours *thousands or millions of years ago*, and found our then prevailing primitive state completely uninteresting to their own advanced knowledge.*

prevailing adj. existing or most common at a particular time (某时期) 普遍的，盛行的，流行的

the prevailing customs / fashions / style

the attitude towards science prevailing at the time

prevail v. if a belief, custom, situation etc. prevails, it exists among a group of people at a certain time 普遍存在，盛行，流行

prevail in / among ...

the economic conditions which prevail in England and Wales

I admired the creativity which prevailed among the young writers.

Professor Ronald Bracewell, *a leading American radio astronomer*, argued *in Nature* that such a superior civilization, *on a visit to our own solar system*, *may have left* an automatic messenger behind *to await the possible awakening of an advanced civilization*.

radio astronomer

射电天文学家

Nature: a British weekly journal which deals with all areas of science. It is a very respected journal, and many important new discoveries are first



reported in articles in Nature. 英国《自然》杂志

await v. (fml.) to wait for sth. 等候

Several men are awaiting trial for robbery.

They were awaiting the birth of their first child.

awakening n. the moment when you first realize or experience sth. 觉醒

a sexual awakening

the awakening of public concern about the environment

Such a messenger, receiving our radio and television signals, might well re-transmit them back to its home-planet, although what impression any other civilization would thus get from us is best left unsaid.

may / might / could well ... (某事) 可能 (发生或是真的)

Another patient might equally well complain that her neighbours were combining to slander her and persecute her, and yet one might be cautious about believing this statement.

thus adv. in this way, like this 以此方式, 如此, 这样

calculate the area of the triangle thus formed

Hold the wheel in both hands, thus.

The apparatus thus described, *however*, records only the horizontal component of the wave movement, which is, *in fact*, much more complicated.

be left unsaid: if sth. is left unsaid, you do not say it although you might



be thinking it 不说

be better / best left unsaid 不说为好 /最好不说

Some things are better left unsaid.

It's better to leave some things unsaid.

He got up slowly leaving the lunch unfinished.

Please excuse me if I have left any of your questions unanswered.

It is then left completely undisturbed with plenty of food and water so that it can absorb the atmosphere of its new home and see that nothing particularly alarming is happening to its companions.

But here we come up against the most difficult of all obstacles to contact with people on other planets — the astronomical distances which separate us.

come up against ...: if you come up against a problem or difficulty, you are faced with it and have to deal with it 面临（问题、困难）

We may find we come up against quite a lot of opposition from local people.

We came up against a great deal of resistance in dealing with the case.

That is perhaps why sculpture has been described as the most difficult of all arts; certainly it is more difficult than the arts which involve appreciation of flat forms, shape in only two dimensions.

the most difficult of all arts



→ the most difficult art of all

the most difficult of all obstacles

→ the most difficult obstacle of all

the greatest of all Western stars

→ the greatest Western star of all

the most valuable find of all

→ the most valuable of all finds

the most frightening thing of all

→ the most frightening of all things

the deepest holes of all

→ the deepest of all holes

obstacle to sth.

obstacles to world peace

This decision has removed the last obstacle to the hostages' release.

The children lost contact with their families.

Please do not hesitate to contact me if you have any queries.

As a reasonable guess, they might, on an average, be 100 light years away. (A light year is the distance which light travels at 186,000 miles per second in one year, namely 6 million million miles.)

on (an) average 平均

On average, men still earn more than women.



On an average, women live between five and seven years longer than men.

namely adv. that is to say 即，就是

Only one boy was absent, namely Harry.

We need to concentrate on our target audience, namely women aged between 20 and 30.

Radio waves also travel at the speed of light, and assuming such an automatic messenger picked up our first broadcasts of the 1920's, the message to its home planet is barely halfway there.

assuming (that) ... conj. 1、假定，假如

Assuming (that) the house is for sale, would you buy it?

You can stretch your legs on the spacious decks, play games, swim, meet interesting people and enjoy good food—always assuming, of course, that the sea is calm.

assuming (that) ... conj. 2、以为

Assuming (that) the man was making a homosexual advance, he stormed out of the house angrily.

Assuming that his family had been killed during an air-raid, Hans settled down in a Village fifty miles away where he had remained ever since.

even assuming (that) ... = even if ...

Even assuming (that) smokers do see the health warnings, I doubt they'll



take any notice.

pick sth. up: (of a piece of electrical equipment) to receive a signal 接收信号

The equipment picked up the signal from the satellite.

We were able to pick up the BBC World Service.

Similarly, our own present primitive chemical rockets, though good enough to orbit men, have no chance of transporting us to the nearest other star, *four light years away*, let alone distances of tens or hundreds of light years.

similarly adv. 类似地，同样地

The cost of food and clothing has come down in recent years. Similarly, fuel prices have fallen quite considerably.

High inflation usually leads to high interest rates. Similarly, interest rates decline when inflation is low.

likewise

Henry always thought his upbringing was too strict. Likewise, his daughter now complains about her lack of freedom.

by the same token

Margaret demanded total loyalty from her friends, but by the same token she gave total loyalty in return.

orbit v. 1. to revolve in an orbit around 绕.....的轨道运行



The earth takes a year to orbit the sun.

orbit v. 2. to send up and make revolve in an orbit 把.....送入轨道

orbit a satellite

chance n. [C & U] possibility 可能性

chance of (doing) sth.

She has a good chance of a successful recovery.

Is there any chance of getting tickets for tonight's performance?

Perhaps it is the desire for solitude or the chance of making an unexpected discovery that lures men down to the depths of the earth.

let alone = much less / still less

The baby can't talk, let alone run.

He can't run a hundred yards, let alone a mile.

I don't suspect him of theft, let alone of robbery.

Tony can barely boil an egg, much less cook dinner.

I've never seen the man, much less spoken to him.

No living person seemed to notice him, still less to like him.

not to mention = to say nothing of

They own two houses, not to mention a yacht.

The dampness is unpleasant, not to mention the cold.

When you think of the innumerable birds that one sees flying about, not to mention the equally numerous small animals like field mice and voles



which you do not see, it is very rarely that one comes across a dead body, except, of course, on the roads.

It would be an enormous amount of work, to say nothing of the cost.

We will need more time, to say nothing of money.

Fortunately, there is a 'uniquely rational way' for us to communicate with other intelligent beings, as Walter Sullivan has put it in his excellent book, We Are not Alone.

Walter Sullivan (January 18, 1918 – March 19, 1996) was considered the "dean" of science writers. Sullivan spent most of his career as a science reporter for the New York Times. Over a 50-year career he covered all aspects of science — Antarctic expeditions, rocket launchings in the late 1950s, physics, chemistry, and geology.

He wrote several well-received books, including *We Are not Alone*, a bestseller about the search for extraterrestrial intelligence.

put v. to say or write sth. using words in a particular way 措辞说

They caught lobster and fish every day, and, as one of them put it 'ate like kings'.

I don't know how to put it.

How shall I put it?

to put it another way

It's fairly risky. Or to put it another way, don't try this at home.



let me put it this way

- (A) He dropped out of Prof. Johnson's class.
- (B) He'll probably take another class with Professor Johnson.
- (C) Professor Johnson's lectures were boring.
- (D) Students weren't allowed to bring drinks into Professor Johnson's class.

W: You had Prof. Johnson before, right? How would you describe his lectures?

M: Well, let me put it this way: I could never stay awake in one of his classes without first drinking at least two cups of coffee.

Q: What does the man imply?

Answer: (C) Professor Johnson's lectures were boring.

This depends on the precise radio frequency of the 21-cm wavelength, or 1420 megacycles per second.

It is the natural frequency of emission of the hydrogen atoms in space and was discovered by us in 1951; it must be known to any kind of radio astronomer in the universe.

Once the existence of this wave-length had been discovered, it was not long *before its use as the uniquely recognizable broadcasting frequency for interstellar communication was suggested.*

Without something of this kind, searching for intelligences on other



planets would be like trying to meet a friend in London without a pre-arranged rendezvous and absurdly wandering the streets in the hope of a chance encounter.

Education, ... what would civilization be like without its benefits?

Without it we could not make a living.

Without it, nothing could ever be brought to a conclusion; everything would be in a state of chaos.

intelligence n. [C] an intelligent being 智慧生物

Yet those forces must be natural; they cannot be attributed to the actions of mysterious creative intelligences whose existence, in scientific terms, is unproved.

pre-arranged adj. planned or arranged in advance 提前计划或安排好的

rendezvous n. (pl unchanged 复数不变) (place chosen for a) meeting at an agreed time 约会（地点）

arrange / make a rendezvous with Bill at the pub at two o'clock

The dogs have greater freedom, too, for they are allowed to wander outside their enclosure.

He was found wandering the streets of New York.

I've spent two years wandering the world.

in the hope of sth. / that ...: because of the wish for sth. / that ... 怀着.....的希望



Should they sell now or hang on in the hope that the shares will soon be worth serious money?

We came to the island in the hope of finding a simpler way of life.

The men of our family waded down through our flooded meadows with boathooks, in the hope of being able to grapple a corner of the raft and pull it out of the current towards our bank.

Young men who have reason to fear that they will be killed in battle may justifiably feel bitter in the thought that they have cheated of the best things that life has to offer.

In the lift her thoughts were on lunch and a good rest; but when she got out at her own floor, both were forgotten in her sudden discovery that her front door was open.

They leave unwanted objects in drawers, cupboards and attics for years, in the belief that they may one day need just those very things.

The Swedes were the first to recognize that public officials like civil servants, police officers, health inspectors or tax-collectors can make mistakes or act over-zealously in the belief that they are serving the public.

chance adj. [only before noun] not planned or expected = accidental 偶然的

a chance discovery / meeting / encounter / event ...



encounter n. a meeting, esp. one that is sudden, unexpected or violent 偶遇，遭遇，邂逅

Three of them were killed in the subsequent encounter with the police.

The story describes the extraordinary encounter between a man and a dolphin.

Lesson 44 Patterns of culture

predominant [pri'dɒmɪnənt]

adj. 显著的，主要的，多数的

predominant adj. more noticeable or important, or larger in number, than others 显著的，主要的，多数的

Research forms the predominant part of my job.

Dancers have a predominant role in this performance.

predominate v. 占多数，最重要，最显著

In older age groups women predominate because men tend to die younger.

Private interest was not allowed to predominate over the public good.

predominance n. 多数，优势

a predominance of boys in the class

Britain's naval predominance



“dom” = rule

dominate v. 统治，支配，占优势

dominant adj. 最重要的，占支配地位的

domination n. 统治，支配

dominion n. 统治，管辖；领土，版图

predominate “pre” = before v. 占多数，最重要，最显著

predominant adj. 显著的，主要的，多数的

predominance n. 多数，优势

incumbent [ɪnˈkʌmbənt]

adj. 有责任，有义务，必须履行的；现任的

incumbent adj. 1. necessary as part of sb's duty 有责任，有义务，必须履行的

incumbent on / upon sb.

It is incumbent upon all users of this equipment to familiarize themselves with the safety procedure.

incumbent adj. 2. having an official position 现任的

the incumbent president

“cumb” = lie down

incumbent “in” = into adj. 有责任，有义务，必须履行的；现任的

encumber “en” = in v. 妨碍，阻碍



cumbersome “some” (形容词后缀) adj. 笨重的

concubine “con” = together n. 妾，姨太太，小老婆

succumb “sub” = under v. 屈从，服从

recumbent “re” = back adj. 躺着的

cactus ['kæktəs]

n. 仙人掌

cactus → 复数 cacti / cactuses

stimulus → 复数 stimuli

bacillus → 复数 bacilli

alumnus → 复数 alumni

nebula ['nebjələ]

n. 星云

nebula n. a mass of gas and dust among the stars, which often appears as

a bright cloud in the sky at night 星云

nebula → 复数 nebulae

larva → 复数 larvae

alumna → 复数 alumnae

barbarian [bə:'beəriən]



n. 野蛮人；没有教养的人

barbarian n. 1. a member of a group of people from a very different country or culture that is considered to be less socially advanced and more violent than your own 野蛮人

barbarian invasions of the fifth century

barbarian n. 2. a person with little education who has no interest in art and culture 没有教养的人

How can you call those barbarians your friends?

barbarous = barbaric adj. 野蛮的

the barbarous treatment of these prisoners of war

It's a devastating and barbaric act that defies all comprehension.

civilized adj. 文明的

Such things should not be allowed to happen in a civilized society.

barbarism n. 野蛮

The terrorist attack was condemned as an act of barbarism and cowardice.

civilization n. 文明

Each civilization is born, it culminates, and it decays.

sophistication [sə'fɪstɪ'keɪʃn]

n. 高级，复杂，先进；老练，世故；聪明，有经验，理解力强

sophistication n. 1. the sophistication of machines or methods is their quality of being more advanced or complex than others 高级，复杂，先



进

Given the sophistication of modern machines, there is little that cannot be successfully washed at home.

sophistication n. 2. the quality of being comfortable in social situations and knowing about culture, fashion, and other matters that are considered socially important 老练，世故

She spoke simply and directly, without sophistication.

sophistication n. 3. the quality of being intelligent and knowing a lot, so that you are able to understand complicated situations 聪明，有经验，理解力强

computer users with a high degree of sophistication

sophisticated adj. 1. (of machine, device, or method) more advanced or complex than others 高级的，复杂的，先进的

sophisticated modern weapons

Bees use one of the most sophisticated communication systems of any insect.

sophisticated adj. 2. comfortable in social situations and knows about culture, fashion, and other matters that are considered socially important 老练的，世故的

He was older than me and from London and I thought him very sophisticated.



sophisticated adj. 3. intelligent and knows a lot, so that they are able to understand complicated situations 聪明的，有经验的，理解力强的

Consumers are getting more sophisticated and more demanding.

Custom has not commonly been regarded as a subject *of great moment*.

commonly adj. usually; widely 通常；广泛地

The disease is commonly known as mad cow disease.

a commonly used industrial chemical

moment n. outstanding significance or value, importance 重要

... of great moment

a discovery of great moment

momentous adj. vital, crucial, key, critical 重要的，重大的，关键的

The inner workings of our own brains we feel *to be uniquely worthy of investigation*, but custom, *we have a way of thinking*, is behaviour at its most commonplace.

the workings of sth.: the way that an organization, machine or organism operates 工作方式，运作方式，运转方式

the workings of government

the workings of a car engine

The inner workings of our own brains we feel *to be uniquely worthy of investigation*, ...

We feel the inner workings of our brains *to be uniquely worthy of*



investigation, ...

Smoking he absolutely loathes.

That John is a thief I can't believe.

The president praised the loyalists, but the rebels he declared traitors.

不患人之不己知 患不知人也

硕鼠硕鼠 无食我黍

三岁贯女 莫我肯顾

微斯人 吾谁与归

He has proved them wrong.

He has proved wrong the forecasts made by the country's leading economic experts.

In 1928 some porpoises were photographed working like beavers to push ashore a waterlogged mattress.

It has to be tall because it is like a giant block and tackle, and we have to lower into the ground and haul out of the ground great lengths of drill pipe which are rotated by an engine at the top and are fitted with a cutting bit at the bottom.

be worthy of n.

be worthy to do / to be done



... to be uniquely worthy to be investigated ...

be worth n. / doing

... to be uniquely worth investigation ...

... to be uniquely worth investigating ...

have a way of doing sth.: often or usually do sth. 往往, 常常

Ruth has a way of ignoring me that drives me mad.

..., we usually think, ...

commonplace adj. happening or existing in many places, and therefore not special or unusual 寻常的, 司空见惯的, 不足为奇的

All these computer uses have become commonplace.

at one's + 形容词最高级 处于.....最.....的状态

At the age of twelve years, the human body is at its most vigorous.

The garden is at its most beautiful in June.

Caesar was at his most powerful when he conquered Gaul.

As a matter of fact, it is the other way around.

the other way around / round

I thought he was the boss and she was his secretary, but in fact it was the other way around.

the opposite

The other side of the picture is quite the opposite.

the contrary



I was worried that it might be too difficult for me but I found the contrary.

the reverse

The teachers say my son is slow, but I believe the reverse.

the antithesis

She is slim and shy—the very antithesis of her sister.

Traditional custom, taken the world over, is a mass of detailed behaviour
more astonishing than what any one person can ever evolve in individual
actions, no matter how aberrant.

the world over

all over the world

throughout the world

around the world

a mass of... / masses of...

a lot of... / lots of...

This caused the construction of gigantic buildings where too large masses
of human beings are crowded together.

evolve v. to develop and change gradually 演变

Popular music evolved from folk songs.

The group gradually evolved into a political party.

Animals have evolved camouflage to protect themselves from predators.

evolution



Darwin's theory of evolution

“volve”转

evolve

involve

revolve

The earth revolves around the sun.

aberrant adj. abnormal 异常的

Taking drugs may result in aberrant behavior.

Yet that is a rather trivial aspect of the matter.

trivial adj. not serious, important, or valuable 微不足道的

a trivial detail / matter / problem

I know it sounds trivial, but I'm worried about it.

The fact of first-rate importance is the predominant role that custom plays in experience and in belief, and the very great varieties it may manifest.

of ... importance

The cultivation of a hobby and new forms of interest is therefore a policy of the first importance to a public man.

play a ... role / part in ...

variety n. 1. [C] 种类

Scientists discovered that this particular variety of rabbit (and apparently no other animal) was susceptible to a fatal virus disease, myxomatosis.



No two sorts of birds practise quite the same sort of flight; the varieties are infinite; but two classes may be roughly seen.

variety 2. [U] 千变万化，多样性

There is so much variety that you never have to make do with second best.

Today, enough soundings are available to enable a relief map of the Atlantic to be drawn and we know something of the great variety of the sea bed's topography.

a variety of ... 各种各样的

By comparison, trips by sea offer a great variety of civilized comforts.

manifest vt. 使.....显露出来

Musical talent usually manifests itself in childhood.

manifest adj. 明显的

Surely because progress of a particular kind is actually taking place around us and is becoming more and more manifest.

No man ever looks at the world with pristine eyes.

pristine adj. extremely clean or new 纯洁的，全新的

He has a pristine reputation.

The bike was in pristine condition.

He sees it edited by a definite set of customs and institutions and ways of thinking.



institution 1. [C] 大型机构

a financial / educational / charitable institution

institution 2. [C] 风俗习惯

Drinking tea at 4 pm is a popular British institution.

As can be seen in this cartoon, a soccer player is on the point of making a penalty kick whereas a goalkeeper is preparing himself for it. Two different images pop up in their minds at the same time: the attacker is under the illusion that the goalkeeper is as big as the goal so that it is almost impossible for him to shoot in while the keeper, on the other hand, is daunted by the delusion that he turns helpless dwarf guarding a gigantic goal.

The lesson we can draw from this picture is clear and simple: all too often one overestimates the challenges and difficulties he faces and underrates his capabilities to cope with them. No man ever looks at this world with pristine eyes. He sees it edited by his own feelings and ways of thinking. This is especially the case when one is at a critical time in his life. Fears and tension preoccupy him at this very moment, truth distorted and confidence destroyed.

To calm his nerves and pluck up his courage, he has to realize what the truth is and admit that it is not the end of the world if he fails at this time. Then gradually, and often quite swiftly, the process of recuperation begins



and a better result may be anticipated.

Even in his philosophical probings he cannot go behind these stereotypes; his very concepts of the true and the false will still have reference to his particular traditional customs.

probe v. to ask questions in order to find out secret or hidden information about sb./sth. 打探，探究，调查

He didn't like the media probing into his past.

a TV programme that probed government scandals in the 1990s

stereotype n. [C] image, idea, character, etc. that has become fixed or standardized in a conventional form without individuality 陈规，老一套，旧框框

He doesn't conform to the usual stereotype of the city businessman with a dark suit and rolled umbrella. 他不像典型的城市商人那样，穿一身深色的西装、带一把收好的雨伞。

prototype n. [C] first or original example of sth. that has been or will be copied or developed; model or preliminary version 事物之原始形态，原型，雏形，模型，蓝本

the prototype for future school buildings 未来的学校建筑的模型

a prototype supersonic aircraft 超音速飞机的样机

very adj. (used to emphasize a n. 用以加强名词的语气)

He knows our very thoughts. 他了解我们内心深处的想法。



The very idea of going abroad delighted him. 他想到出国一事就很欢喜。

have reference to ... 与.....有关

This has no reference to what we were discussing.

John Dewey has said in all seriousness that the part played by custom in shaping the behaviour of the individual, as against any way in which he can affect traditional custom, is as the proportion of the total vocabulary of his mother tongue against those words of his own baby talk that are taken up into the vernacular of his family.

John Dewey

American philosopher, psychologist and educator

A as against B is as C against D

The military power of the US, as against that of DPRK, is as the strength of an elephant against that of a mouse.

take sth \Leftarrow up: to accept a suggestion, offer, or idea 接受

Rob took up the invitation to visit.

vernacular n. [C] language or dialect spoken in a particular country or region, as compared with a formal or written language 本地话，方言土语

When one seriously studies the social orders that have had the opportunity to develop autonomously, the figure becomes no more than



an exact and matter-of-fact observation.

autonomous adj. 自治的，独立的

They proudly declared themselves part of a new autonomous province.

He treated us as autonomous individuals who had to learn to make up our own minds about important issues.

figure n. figure of speech 比喻

'Get up with the lark' is a figure (of speech), meaning 'Get out of bed early'.

no more than: only 只不过

It will take no more than five days to read the book.

It's no more than a misunderstanding.

matter-of-fact adj. showing no emotion when you are talking about sth.

exciting, frightening, upsetting etc. 不带个人情感的

She told us the news of his death in a very matter-of-fact way.

He was very matter-of-fact about the breakdown of his marriage.

observation n. remark or comment 言语，评论

She made one or two observations about the weather.

The life history of the individual is *first and foremost* an accommodation to the patterns and standards traditionally handed down in his community.

first and foremost: more than anything else, firstly and most importantly



首要地，主要

He does a bit of writing, but first and foremost he's a teacher.

First and foremost, we have to consider the morality of the enterprise.

accommodation to sth. 对.....的适应

the accommodation of my plans to yours

accommodate to sth. 适应.....

Her eyes took a while to accommodate to the darkness.

hand sth. down: pass sth. from older people to younger ones

The recipe was handed down from an ancestor of the family.

The only way that they can preserve their history is to recount it as sagas—legends handed down from one generation of storytellers to another.

community n. a group of people who have the same interests, religion, race etc. 集体，群体

From the moment of his birth, the customs into which he is born shape his experience and behaviour.

By the time he can talk, he is the little creature of his culture, and *by the time he is grown and able to take part in its activities*, its habits are his habits, its beliefs (are) his beliefs, its impossibilities (are) his impossibilities.

creature n. someone who is controlled or influenced a lot by sth. 产物，



奴隶，傀儡

creature of ...

a creature of habit

He is a creature of the government.

Every child that is born into his group will share them with him, and no child *born into one on the opposite side of the globe* can ever achieve the thousandth part.

be born in / into ...

I was born in Tokyo.

Meg was born into a large family.

share v. to have the same opinion, quality, or experience as sb. else 有一样的，有共同的

I believe my view is widely shared.

In some moods, Nature shares it.

share sth. with sb.

People often share their political views with their parents.

Stubbornness was a characteristic he shared with his mother.

There is no social problem (which) it is more incumbent upon us to understand than this (social problem) of the role of custom.

it is incumbent upon / on sb. to do sth.

It is incumbent upon parents to control what their children watch on TV.



The most valuable find of all was the ship's log book, parts of which it was still possible to read.

But in an old man who has known human joys and sorrows, and has achieved whatever work it was in him to do, the fear of death is somewhat abject and ignoble.

Until we are intelligent as to its laws and varieties, the main complicating facts of human life must remain unintelligible.

intelligent adj. showing powers of understanding 能够理解的，了解的

The vast majority of us are not intelligent about the whole thing.

as to prep. = about = with regard to 关于，对于

He was uncertain as to which road to take.

We are puzzled as to how it happened.

unintelligible adj. impossible to understand 不可能理解的，难懂的

What he said was completely unintelligible to me because he used many technical terms.

The study of custom can be profitable only after certain preliminary propositions have been accepted, and some of these propositions have been violently opposed.

preliminary adj. coming before a more important action or event,

preparatory 开端的，初步的，预备性的

after a few preliminary remarks



preliminary inquiries / experiments / negotiations

a preliminary contest

proposition n. statement that expresses a judgement or an opinion,

assertion 观点，见解，主张

The proposition is so clear that it needs no explanation.

I approve of the proposition that love alone can waken love.

In the first place, any scientific study requires that there be no preferential weighting of one or another of the items in the series it selects for its consideration.

In the first place, I'm too busy, and in the second, I don't really want to go.

first / firstly

first of all

to begin with

to start with

preferential adj. of, giving, receiving or showing preference 优先的，给予优先的，得到优先的，优待的

Europe has given Caribbean banana growers preferential treatment for more than 20 years.

weight vt. [esp passive 尤用于被动语态] plan or organize (sth.) in a way that favours a particular person or group, bias 计划或组织（某事物）使之偏向某人或某集体，使偏袒

a law weighted against those owning land 对土地持有者不利的法规



a law weighted in favour of those owning land 对土地持有者偏袒的法规

In all the less controversial fields, like the study of cacti or termites or the nature of nebulae, the necessary method of study is to group the relevant material and to take note of all possible variant forms and conditions.

group v. to make sb./sth. form a group 使聚集，汇集

The children grouped themselves around their teacher.

All the multiple choice questions will be grouped together for convenience.

take note of sth. = pay attention to sth. = take notice of sth. 注意.....

People were beginning to take note of her talents as a writer.

variant adj. having or exhibiting variation; differing 相异的，不同的

a variant form of the word

a variant form of oxygen known as ozone

variant n. [C] sth. which is slightly different from other similar things 变种，变体

variant on / of ...

There are many colas on the market now, all variants on the original drink.

There are four variants of malaria, all transmitted to humans by a particular family of mosquitoes.



In this way, we have learned all that we know of the laws of astronomy,
or of the habits of the social insects, *let us say*.

(let us) say: for example 比如说，例如

To see the problem here more clearly, let's look at a different biological
system, (let us) say, an acorn.

The Americans would happily reach one accord on standards for medical
devices and then hammer out different pacts covering, say, electronic
goods and drug manufacturing.

It is only in the study of man himself that the major social sciences have
substituted the study of one local variation, that of Western civilization.

It is only in the study of man himself that the major social sciences have
substituted the study of one local variation, that of Western civilization,
(for the study of custom of all human beings).

substitute A for B

replace B with A

You can substitute chicken for beef if you don't like red meat.

You can replace beef with chicken if you don't like red meat.

Anthropology was by definition impossible, as long as these distinctions
between ourselves and the primitive, ourselves and the barbarian,
ourselves and the pagan, held sway over people's minds.

by definition: if sth. has a particular quality by definition, it must have



that quality because all things of that type have it 从本质上来说

People say that students are by definition idealistic and impatient.

Human perception is highly imperfect and by definition subjective.

hold sway: to be the main influence on people's opinions or behavior 占主导地位

The traditional idea of wearing new clothes on New Year's day seems no longer to hold sway.

It was necessary *first to arrive at that degree of sophistication where we no longer set our own belief against our neighbour's superstition.*

set ... against ...: make sb. oppose or be hostile to (a friend, relative, etc)
使某人反对或敌视（朋友、亲戚等）

The civil war set brother against brother.

She accused her husband of setting their children against her.

It was necessary *to recognize that these institutions which are based on the same premises, let us say the supernatural, must be considered together, our own among the rest.*

premise n. statement or idea on which reasoning is based, hypothesis（推理所依据的）前提，假定

Advice to investors was based on the premise that interest rates would continue to fall.

supernatural adj. that cannot be explained by natural or physical laws 超



自然的

supernatural beings, eg angels and devils

witch-doctors believed to have supernatural powers

our own (being) among the rest

be among ... 是.....之一; 包括在.....之中

He was among the last to leave.

Among those present were the Prime Minister and her husband.

These ocean waves are among the earth's most complicated natural phenomena.

Lesson 45 Of men and galaxies

dispute [dɪ'spju:t]

v. 争夺, 捍卫; 争论, 争执; 质疑

dispute v. 1. to fight to get control of sth. or to win sth. 争夺, 捍卫

Our soldiers disputed every inch of ground.

On the last lap three runners were disputing the lead.

I am sure that, without modern weapons, I would make a very poor show of disputing the ownership of a cave with a bear, and in this I do not think that I stand alone.

dispute v. 2. to argue or disagree with sb. 争论, 争执

The issue remains hotly disputed.



They disputed at great length what they should do.

dispute v. 3. to question whether sth. is true and valid 质疑

These figures have been disputed.

The election result was disputed.

Galileo maintained that the earth revolved around the sun, disputing the belief held by the Roman Catholic church that the earth was the center of the universe.

dispute n. a serious argument or disagreement 争议，争执，纠纷

be beyond dispute

China's claims of sovereignty over the Diaoyu Islands are beyond dispute.

be open to dispute / question / debate

.....尚有争议

It's open to dispute / question / debate whether the new government is any better than the old one.

subdue [səb'dju:]

v. 征服，制伏，击败

subdue v. to defeat or control a person or group, esp. using force 征服，

制伏，击败

Police managed to subdue the angry crowd.



It is related of Caesar that when speaking of the ease with which he subdued Egypt, he made use of the laconic saying, 'I came, I saw, I conquered.'

“duct” / “duce” / “due” = lead

subdue “sub” = under v. 征服, 制伏, 击败

abduct “ab” = away v. 诱拐, 绑架

abduction n. 诱拐, 绑架

abductor n. 绑匪

deduce “de” = down v. 推理, 演绎

deductive adj. 演绎的, 推断的

deduction n. 推理, 演绎; 结论

induce “in” = into v. 诱使, 引起, 造成

inductive adj. 归纳的

induction n. 归纳法; 诱导; 引发

introduce “intro” = inward v. 介绍, 引进

produce “pro” = forward v. 生产, 制造; 产生, 引起

reduce “re” = back v. 减少

seduce “se” = apart v. 色诱, 勾引

seduction n. 色诱, 勾引

traduce “tra” / “trans” = across v. 诋毁

conduct “con” = together v. 领导, 指导; 指挥 n. 行为, 品德



viaduct “via” = road n. 高架桥

ventiduct “venti” = wind n. 通风管

oviduct “ovi” = egg n. 输卵管

envision [ɪnˈvɪʒn]

v. 设想，想象

envision v. to imagine what a situation will be like in the future =

envisage = imagine 设想，想象

They envision an equal society, free of poverty and disease.

Nobody can envisage the consequences of total nuclear war.

But the competition of man against man is not the simple process

envisioned in biology.

forecast v. & n. (公开地) 预测，预报

weather forecast

the company's annual sales forecast

Rain has been forecast for tomorrow.

The Federal Reserve Bank forecasts the economy will grow 8% this year.

predict / foretell v. 预言；foretell 预示

He predicted / foretold that the improvement will continue.

Timely snow foretells a bumper harvest.

forebode v. 预示 (不好的事情)



Black clouds forebode a storm.

prophecy v. 预言（尤指靠魔力或神力）

Jesus prophesied that one of his disciples would betray him.

heretic ['herətɪk]

n. 异教徒；异端邪说者

heretic n. 1. a person who belongs to a particular religion, but whose beliefs or actions seriously disagree with the principles of that religion 异教徒

Thousands of heretics were burned at the stake.

heretic n. 2. someone whose beliefs or actions are considered wrong by most people, because they disagree with beliefs that are generally accepted 异端邪说者

He was considered a heretic and was ridiculed for his ideas.

heresy n. 1. a belief that disagrees with the official principles of a particular religion 异教观念

He was executed for heresy.

heresy n. 2. a belief, statement etc. that disagrees with what a group of people believe to be right 异端邪说

Radical remarks like this amount to heresy for most members of the Republican party.



be heresy to sb.

The idea is heresy to most employees of the firm.

And perhaps all those successful college graduates would have been successful whether they had gone to college or not. This is heresy to those of us who have been brought up to believe that if a little schooling is good, more has to be much better.

suffice [sə'faɪs]

v. 足够

suffice v. (fml.) to be enough 足够

Generally a brief note or a phone call will suffice.

suffice for sth.

Will \$10 suffice for the trip?

suffice to do sth.

One example will suffice to illustrate the point.

Perhaps it will suffice to mention the nuclear bomb.

suffice (it) to say (that) 只须说.....就够了

I won't go into all the depressing details; suffice it to say that the whole affair was an utter disaster.

In man's early days, competition with other creatures must have been critical.



these days

in those days

In the pioneering days, however, this was not the case at all.

In the early days of the settlement of Australia, enterprising settlers unwisely introduced the European rabbit.

critical adj. very important 重大的, 关键的

Practice is a critical factor in learning English.

Financial support is critical to the region's development.

But this phase *of our development* is now finished.

Arthur C. Clark once suggested a revolutionary idea passes through three phases: ...

Indeed, we lack practice and experience nowadays in dealing with primitive conditions.

indeed adv. used to introduce an additional statement that emphasizes or supports what you have just said 事实上

I didn't mind at all. Indeed, I was pleased.

It would be difficult. Indeed it would be almost impossible.

I am sure that, *without modern weapons*, I would make a very poor show *of disputing the ownership of a cave with a bear*, and in this I do not think that I stand alone.

Without something of this kind, searching for intelligences on other planets would be like trying to meet a friend in London without a



pre-arranged rendezvous and absurdly wandering the streets in the hope of a chance encounter.

make a very poor show 出洋相

make a fool / an exhibition of oneself

stand alone: to be in a position or place where there are no other people
孤立

On this issue, Britain stands alone against the US.

So long as we stand together (团结一致), we'll win.

Don't stand there (袖手旁观) —give me a hand!

He'll be standing down (引退, 退位) as CEO at the end of the year.

She is going to stand trial (受审) for tax evasion.

No one is taller than those who are willing to stand corrected (接受他人指正).

The Tibetans call it Chomulungma, "Goddess Mother of the Snows".

Goddess Mother of the world, actually. In the traditional Tibetan translation.

I stand corrected.

There is no need to stand on ceremony (拘于礼节, 拘谨) —come in and relax.

If you want to go abroad, we won't stand in your way (阻拦你).

The last creature to compete with man was the mosquito.



But even the mosquito has been subdued by attention to drainage and by chemical sprays.

drainage 1. [U] process by which water or liquid waste is drained from an area 排水

a drainage system

drainage facilities

drainage 2. [U] a system of drains 排水系统

The drainage of the city is not good: some of the pipes are broken.

spray n. liquid which is forced out of a special container in a stream of very small drops 喷雾

a new hair styling spray

Most farmers use pesticide sprays.

Competition between ourselves, person against person, community against community, still persists, however; and it is as fierce as it ever was.

persist v. 1. if something bad persists, it continues to exist or happen (坏事) 持续

If the pain persists, consult a doctor.

The belief that the earth was flat persisted for many centuries.

persist v. 2. continue doing sth. in a determined but often unreasonable



way 执意做某事

persist in doing sth.

If he persists in asking awkward questions, then send him to the boss.

She was sentimentally attached to this house, for even though it was far too big for her needs, she persisted in living there long after her husband's death.

fierce adj. involving a lot of force or energy (竞争等) 激烈的

We face fierce competition from overseas competitors.

There was a fierce opposition of the proposal.

But the competition of man against man is not the simple process envisioned in biology.

It is not a simple competition *for a fixed amount of food* determined by the physical environment, because the environment that determines our evolution is no longer essentially physical.

competition for sth.

Competition for the job was intense.

We're in competition with several other companies for the contract.

fixed adj. fixed times, amounts, meanings etc. cannot be changed 固定不变的

a fixed price

The contract is for a fixed period of three years.



The interest rate on the loan is fixed.

physical adj. connected with things that actually exist or are present and can be seen, felt, etc. rather than things that only exist in a person's mind

物质的，实实在在的，真实而具体的，看得见摸得着的

the physical world / environment

physical weapons

Is there any physical evidence to suggest that a crime has been committed?

Our environment is chiefly conditioned by the things we believe.

condition v. have an important effect on sb. / sth., determine 对.....有重要影响，决定

be conditioned by ...

We are all conditioned by the society and age we live in.

What I buy is conditioned by the amount I earn.

Morocco and California are bits of the Earth in very similar latitudes, both on the west coasts of continents with similar climates, and probably with rather similar natural resources.

latitudes n. [pl] an area at a particular latitude 纬度地区

in ... latitudes

The birds breed in northern latitudes.

The plant grows best in cooler latitudes.



a town on the south coast of England

a thriving holiday resort on the east coast of Italy.

Yet their present development is wholly different, not so much because of different people even, but because of the different thoughts that exist in the minds of their inhabitants.

Yet their present development is wholly different, not so much because of different people even, but because of the different thoughts that exist in the minds of their inhabitants.

然而，它们目前的发展程度完全不同，甚至可以这样说：这与其说是因为人的区别，不如说是因为居民头脑中思想观念的区别。

not so much ... as ... 与其说是.....不如说是.....

She's not so much poor as careless with money.

The details are not so much wrong as they are incomplete.

The holidays ended all too soon.

假期结束得实在是太快了。

I'm only too ready to help you.

我实在是非常乐意帮助您。

I did so see him.

我确实看到他了。

No, I won't help you, so there?

不，我不想帮助你，你拿我怎么样？



This is the point I wish to emphasize.

wish to do sth. (fml.) = want to do sth. = like to do sth.

She wishes to be alone.

I wish to make a complaint.

The most important factor in our environment is the state of our own minds.

It is well known that where the white man has invaded a primitive culture,
the most destructive effects have come not from physical weapons but
from ideas.

man n. a person, either male or female —used esp. in formal situations or
in the past 人

All men are equal in the eyes of the law.

Growing old is something a man has to accept.

come from / of (doing) sth.: be the result of sth. 因为，是……的结果，
来自于

His air of confidence came from his firm belief that he was the best
candidate for the job.

It's the kind of accident that comes from being careless.

I did ask a few questions, but nothing came of it.

That comes of eating too much!

That's what comes of not practicing — you've forgotten everything!



Ideas are dangerous. The Holy Office knew this full well when it caused heretics to be burned in days gone by.

the Inquisition / Holy Office 宗教法庭

a Roman Catholic organization in the past whose aim was to find and punish people who had unacceptable beliefs

In his own lifetime Galileo was the centre of violent controversy; but the scientific dust has long since settled, and today we can see even his famous clash with the Inquisition in something like its proper perspective.

know sth. full well / very well / perfectly well 非常清楚.....

Preachers pray for rain, knowing full well that no such prayer was ever answered.

You know very well what I'm talking about!

I knew perfectly well it was a trap.

cause v. to compel by command, authority, or force 逼迫，迫使

cause sb. to do sth.

The king caused him to resign.

The moderator invoked a rule causing the debate to be ended.

in days / times / years gone by = in the past

In times gone by, all crops were harvested by hand.

These herbs would have been grown for medicinal purposes in days gone by.



let bygones be bygones: to forget sth. bad that someone has done to you
and forgive them 不计前嫌，既往不咎

Indeed, the concept of free speech only exists in our modern society
because when you are inside a community, you are conditioned by the
conventions of the community to such a degree that it is very difficult to
conceive of anything really destructive.

free speech = freedom of speech n. the right to express any opinion in
public without censorship or restraint by the government 言论自由
to such a degree / extent that ...

Her condition deteriorated to such a degree that a blood transfusion was
considered necessary.

It is a harmless habit, but it litters up her desk to such an extent that every
time she opens it, loose bits of paper fall out in every direction.

conceive v. (fml.) to imagine a particular situation or to think about
something in a particular way 想象，设想

conceive of sth.

Many people can't conceive of a dinner without meat or fish.

It is only someone looking on from outside that can inject the dangerous
thoughts.

look on = stand by 旁观



Only one man tried to help us, the rest just looked on / stood by in silence.

onlooker = bystander 旁观者

look on ... as ... 把.....看做.....

We look on her as a daughter.

stand by sb. 支持帮助某人

He stood by her through the difficult times.

inject v. to add something new to a situation 注入.....

Young staff are injecting new life into the company.

Try to inject confidence into your voice.

I do not doubt that it would be possible to inject ideas into the modern world that would utterly destroy us.

You may pick them up in utter exhaustion, if wind over the sea has driven them to a long journey.

I would like to give you an example, but fortunately I cannot do so.

Perhaps it will suffice to mention the nuclear bomb.

Imagine the effect on a reasonably advanced technological society, one that still does not possess the bomb, of making it aware of the possibility, of supplying sufficient details to enable the thing to be constructed.

reasonably adv. 1. in a reasonable way 合理地，合乎逻辑地

discuss the matter calmly and reasonably



reasonably 2. to a fairly high degree, level, or standard = fairly 相当地，
颇为

reasonably good / accurate / clear

We are reasonably sure this is the best solution.

the effect / influence / impact of ... on / upon ...

the influence of parents on their children

the effect of fertilizers on the crops

the impact of the oil spill on marine life

In the organization of industrial life the influence of the factory upon the physiological and mental state of the workers has been completely neglected.

This result merely confirms earlier American and British studies: if there is any effect of noise upon mental health, it must be so small that present methods of psychiatric diagnosis cannot find it.

Snakes did not acquire their poison for use against man but for use against prey such as rats and mice, and the effects on these of viperine poison is almost immediate.

Twenty or thirty pages of information *handed to any of the major world powers around the year 1925 would have been sufficient to change the course of world history.*

power n. a country that is strong and important and can influence events,



or that has a lot of military strength 大国， 强国

Egypt is still a major power in the Middle East.

Zheng He's seven expeditions established China as the world's top naval power.

superpower n. any of the most powerful nations in the world, esp. the USA or former USSR 超级大国

Since the disintegration of the USSR, there has been only one superpower — the USA.

If twenty or thirty pages of information had been handed to any of the major world powers around the year 1925, it would have been sufficient to change the course of world history.

If twenty or thirty pages of information had been handed to any of the major world powers around the year 1925, the course of world history would have been changed.

Had twenty or thirty pages of information been handed to any of the major world powers around the year 1925, it would have been sufficient to change the course of world history.

Had twenty or thirty pages of information been handed to any of the major world powers around the year 1925, the course of world history would have been changed.

be sufficient to do sth.



The money is not sufficient to cover everything that needs doing.

It is a strange thought, but *I believe* a correct one, that twenty or thirty pages of ideas and information would be capable of turning the present-day world upside down, or even destroying it.

present-day adj. existing now 当今的

The amount of money is small by present-day standards.

The novel is set in present-day Russia.

upside down adv. with the top at the bottom and the bottom at the top 颠倒, 翻转

To get the plant out of the pot, turn it upside down and give it a gentle knock.

upside-down adj. with the upper part underneath instead of on top 上下翻转过来 (的)

That picture is upside-down.

I have often tried to conceive of what those pages might contain, but of course I cannot do so because I am a prisoner of the present-day world, *just as all of you are*.

We cannot think outside the particular patterns that our brains are conditioned to, or, *to be more accurate*, we can think only a very little way outside, and then *only if we are very original*.

condition v. 1. have an important effect on sb. / sth., determine 对.....有



重要影响，决定

condition v. 2. to train or influence a person or animal mentally so that they do or expect a particular thing without thinking about it 训练或影响.....使习惯或适应.....

condition sb. to do sth.

Pavlov conditioned dogs to salivate at the sound of a bell.

Many women are conditioned from birth to be accepting rather than questioning.

condition sb. to sth.

It didn't take them long to become conditioned to the new environment.

Patients can become conditioned to particular forms of treatment.

conditioning n. 潜移默化的影响

Conditioning starts as soon as boys are given guns to play with and girls are given dolls.

Social conditioning makes crying more difficult for men.

After years of conditioning, most of us have developed an unshakable faith in railway time-tables.

then adv. used to add sth. to what you have just mentioned 此外，而且
and then

It costs \$20, and then there's the sales tax to pay.

We have to invite your parents and my parents, and then there's your



brother.

only if ...: 只有.....

The missiles can be fired only if the operator types in a six-digit code.

If you are younger, and in a solid financial position, you may decide to take an aggressive approach, but only if you're blessed with a sanguine disposition and won't suffer sleepless nights over share prices.

she will go only if he goes.

Only if he goes will she go.

original adj. able to produce new ideas, creative 有创见的，有创造力的

an original thinker / writer / painter

the product of a highly original mind