IPAPANNEW字体可完美显示音标

整数位数字更受青睐

Ever been running the treadmill, exhausted跑步机, ready to quit放弃—but you're at the 2.9 mile mark, so you run that last 10th to make it an even three? Why do you do it? Well it may be because round numbers are intrinsically motivating to us, even if there's no obvious reward for reaching them. That's according to a study in the journal Psychological Science. [Devin Pope and Uri Simonsohn, "Round Numbers as Goals: Evidence From Baseball, SAT Takers, and the Lab"]

Researchers studied three decades of Major League Baseball batting averages and play-by-play data. They found that players were four times as likely to end the season with a batting average of .300, rather than .299. And players purposely manipulated their averages, by choosing when to swing away or work out a walk, or when to be pinch-hit for.

Examining over four million SAT scores revealed a similar trend. Students with scores of, say, 1,290 rather than 1,300 were more likely to retake the test—even though admissions data showed that administrators didn't seem to favor rounded scores.

It’s not clear why these seemingly arbitrary goals are important to us. But they illustrate internal motivation that could confound some ideas in economics. Because some increments are apparently more equal than others.

就是在跑跑步机时，你已经累的差了气了，不想玩了，但是一看跑了2.9，所以你拼了老命又跑了10下，凑了个整数3，你才心安理得，这是为啥子呢？想要个整数是人的本性？其实就是你弄了个整数也没什么口头表扬啥的。

那本“心理科学月刊”杂志对此的研究如是说：“从对棒球比赛，高考，和实验室工作等的研究表明，人们喜欢达到整数位数字的工作目标”。

研究者们研究了三十年的美国职业棒球赛事的击球率和比赛的详细数据，发现，比赛者非常愿意他们的赛季结束后的的击球率是300，而不是299，他们想尽各种办法有意去调整使得这个击球率为整数的300。

研究了近400万份的高考分数也表明了同样的结果，学生们宁愿再考一下得个1300分也不要那个1290分，虽然录取的时候多个10分8分的圆整后的分数也不起作用。

还没整明白为什么这个圆整的数字目标对人们是如此重要，但是这还是表明了一种内在的动机，这种动机会混响我们经济活动的某些观念，因为某些增长和其他没有增长的明显是不差啥子的。

quit v.放弃，辞去(工作) （you quit your job）

→you quit an activity or quit doing something, 停止;退出;放弃

I was trying to quit smoking at the time. 当时我正在努力戒烟。

→you quit a place, 离开(某地)

→you are going to call it quits, 决定结束;就此了结

You can decide whether there is hope in working for mutual happiness, or if you should call it quits. 你可以决定是否有希望为双方共同的幸福努力，或者就此一刀两断。

round number n. （用整十、整百、整千等来表示的）约整数；概数；圆整数

女人有泪也不要轻弹

We produce tears in response to insults to the eyes—the sting of onion fumes, a tiny insect that flew into your cornea. But we also produce emotional tears. And it’s long been known that emotional tears are chemically different from poke-in-the-eye tears. Now researchers at the Weizmann Institute of Science in Israel find that women’s emotional tears have definite physiological effects on men. The work appears in the journal Science. [Shani Gelstein et al, Human Tears Contain a Chemosignal]

The researchers knew that mouse tears contain pheromones that convey information to other mice. So they looked for similar kinds of signals in human tears.

Two women volunteered to watch sad movies and have their tears collected. Twenty-four men were then asked to sniff the movie tears or a saline solution. The men noted no particular smell in either sample of salty water. But the men’s own body chemistry could tell the difference.

When the men looked at emotionally neutral images of women’s faces after sniffing real tears, they reported less sexual attraction. The men also had lower levels of testosterone and less physiological arousal after smelling emotional tears compared with saline. Future studies will look at men’s tears, once researchers have collected enough videos of heartbreaking losses in big football games.

当眼里受到攻击时，我们以泪水应对，比如洋葱气味的侵袭，小虫飞进了眼睛。但是，我们也能哭出充满感情的泪水。人们现在已经知道，充满感情的泪水与应对逆境的泪水在化学成分上不同。最近，以色列威兹曼研究生的科学家们发现，女性动情的泪水对男性具有的非常显著的影响。这一研究结果发表在了《科学》杂志上。

科学家们知道，老鼠的眼泪含有信息素，能够从一只老鼠传递到另外一只。因此，科学家想以此看看人类的眼泪是否也如此。

两名女性志愿者在看了悲剧电影之后的眼泪被收集起来。然后有24名男性闻了这些泪水，同时，他们也要闻一种含盐溶液。结果，这些男性在闻了这些不同的溶液后，没有什么不同。但是他们自己身体的化学物质，却感知出了这些不同。

当男性在闻了眼泪后，再看这些女性的中等表情照片，他们表示，这些女性的性吸引力不怎么样。而与闻盐水相比，闻过眼泪后，男性体内的睾丸激素和生理反应都发生了下降。今后的研究还将继续关注男性的泪水，不过前提是科学家们收集到了足够的足球比赛输球的视频。

网络微趋势引发战争或和平

Oh what a tangled web we weave. Or so it may seem. Because many social networks eventually evolve into one of just two states. We either all get along. Or an unbridgeable divide develops. And a new mathematical model can predict which it will be, findings laid out in the Proceedings of the National Academy of Sciences. [Seth Marvel et al., Continuous-time model of structural balance]

Consider a relationship triangle. Arthur and Carl don’t like each other. But Bill is friendly with them both. Bill will probably try to convince Arthur and Carl to get along. But Arthur and Carl are telling Bill that the other guy’s no good. You don’t need to be a math whiz to see that, as time goes on, either everyone will be friends or Bill is going to have to pick a side.

Now picture a big network made of these triangles. Which is what scientists did in their computer model. And they found that this theoretical social network produced either global harmony or all-out war, depending on the initial triangles. The model even predicted almost exactly the identities of all the Allied and Axis forces during World War II. So one way to prevent global war may be to forge friendships between enough Arthurs and Carls.

哦，我们编织的网络是多么混乱啊！至少看起来是这样。因为很多社会网络最终演变成两种态势。我们要么就适应，要么任其分化。运用一种新数学模型预测其结果，预测发现刊载在美国国家科学院学报上。

思考这样一种三角关系。亚瑟（A）和卡尔（C）不喜欢对方。但是比尔（B）对他们俩都很友好。比尔很有可能会试着去说服亚瑟和卡尔好好相处。但阿瑟·和卡尔都告诉比尔是另一个人不好。你不需要成为一个数学高手,试着想想,随着时间的推移,是他们三个都能成为朋友，还是比尔将不得不选择的一个？

现在想像一张巨大的网络构成的三角。这是科学家们在他们的计算机模型中说做的。他们发现,这张理论的社会网络既能使全球和谐也能导致全面战争爆发,这取决于依赖于最初的三角形。这个模型甚至能准确预测二战期间，组成同盟国和轴心国势力的国家是哪些。因此,防止全球战争也许可以简化为使足够多的卡尔和亚瑟建立友谊。

病人应该知道医生的睡眠状况

Over the years regulations have developed to limit the hours of hospital interns and residents. Because someone putting in a 100-hour workweek might not be at their best when deciding which medication to prescribe or when inserting a Foley catheter. But doctors who have finished their training don’t face any restrictions in their hours. Now The New England Journal of Medicine argues in an editorial that sleep-deprived physicians set to perform elective surgery should have to get the informed consent of the patient. [Michael Nurok, Charles Czeisler, and Lisa Soleymani Lehmann, "Sleep Deprivation, Elective Surgical Procedures, and Informed Consent"]

Sleep deprivation can impair motor skills as much as alcohol intoxication can. The editorial cites a 2009 study in the Journal of the American Medical Association that found an increase in the risk for complications in patients who had elective surgery performed by surgeons who’d had the chance for less six hours of sleep during a previous on-call night.

The editorial’s authors note that such consent represents a new responsibility for patients in making decisions about their care. It could damage the patient-doctor relationship. But, they say, "This shift may be necessary until institutions take the responsibility for ensuring that patients rarely face such dilemmas."

经过多年的发展，医院一直限制实习医生和正式医生的工作时间。因为一个人每周工作100个小时的话（每周6天工作，就是每天16.66小时。每周5天工作的话，就是20小时。每周7天工作的话，就是14.28小时。），在面对开什么药，或者何时插入弗利氏导尿管时，就不能做出最佳的选择。但是那些刚刚结束了训练的医生就不会受到这种限制。《新英格兰医学杂志》最新发表的一篇编辑部评论文章说到，把睡眠不足的医生提供给病人，让他们选择谁来操刀手术时，应该获得那些消息灵通病人的同意。

睡眠不足的医生在驾驶时和醉汉没什么区别。编辑部引用了2009年发表在《美国医学会杂志》的一篇文章，说如果病人选择了那些在诊断前夜睡眠时间少于6小时的医生，手术后得上并发症的危险出现增高。

编辑部评论的文章提出，得到病人的同意，代表了病人决定自己医疗的责任。虽然，得到同意可能会影响医患关系，但是，编辑们认为，“这一转变非常有必要，只有这样，才能让医院承担责任，保证病人极少面对这样的选择。”

人心更冷漠了吗

As you get jostled in the daily rough and tumble, does it feel like other people care less about how rough you have it and how much you’re getting tumbled? Well, your suspicion may have some data to back it up. Because according to an article in Scientific American Mind magazine, analysis of surveys of college kids reveals that self-reported empathy has been dropping for the last 30 years. And empathy really took a nosedive in the last 10 years. [Jamil Zaki, What, Me Care?]

Nearly 14,000 student questionnaires that were completed in the last three decades were used for the study. And 75 percent of those surveyed today rated themselves as being less empathic than what was the average score 30 years ago.

One possible explanation is social isolation—we tend to do more things on our own and engage in fewer group activities than we used to.

Another possible cause is a decrease in reading fiction for pleasure. Studies have found that the number of stories preschoolers read correlates with their ability to understand other people’s emotional states. The good news is that if empathy can go down, it can also go back up. You feel me?

假定你每天忙于应付生活的艰难与凌乱，你是否会觉得其他人很少关心你的艰难，很少关心你的凌乱？是的，你的怀疑可以找到一些数据支撑了。发表在《科学美国人心理》杂志上的一篇论文中说到，在过去的30年内，对大学生的调查显示，自我意识到的同情他人的水平下降了，而且在过去的30年，同情水平发生了急剧下降[Jamil Zaki, What, Me Care?]。

这项研究采用了在过去30年内调查问卷数据，这些调查覆盖了接近14000份学生。75%的当代被调查者认为自己的同情心比30年前的水平要低。

一种可能的解释是社会隔离——我们更喜欢独立做事，也鼓励在比过去更小的团体内工作。另外一种可能的原因是减少了阅读小说以求消遣的时间。因为有很多研究已经发现，学龄前儿童阅读的故事数量，与他们理解他人心理状况的能力存在相关性。不过也有好消息，如果同情心降低了，它同样可以又上升，还是可以支持你。你能感到我吗？

37度 不低不高刚刚好

As a bitter winter storm rages on the east coast, it’s hard to knock being warm-blooded. But what about the metabolic cost of maintaining a high body temperature? Well, a new study finds that we and many other mammals keep up such a torrid temp because it’s a Goldilocks situation—98.6 is just right.

Albert Einstein College of Medicine researchers previously showed that every one degree Celsius rise in body temperature wards off about 6 percent more fungal species. So tens of thousands of fungi can infect reptiles and amphibians, but we can only be invaded by a few hundred fungi.

In the new work, the researchers created a mathematical model that weighed the fungal protection benefits versus the metabolic cost of high body temperature. And the optimal temperature was 98.1, quite close to what evolution figured out. The research was published in the open-access journal mBio. [Aviv Bergman and Arturo Casadevall, "Mammalian Endothermy Optimally Restricts Fungi and Metabolic Costs"]

Too low a temperature and we’re far more susceptible to fungal infections. Too high a temperature and we’d spend all our time taking in fuel to burn. So 98.6, like that middle bowl of porridge, is just right.

今年的冬天，让东海岸的人们感受到了暴雪的强劲，冰冷刺骨的冷空气开始让人觉得维持体温都不容易。那么从科学角度去思考，维持体温能量消耗如何？现在有了答案，一项最新的研究表明37度是人和大多数哺乳动物最佳的恒定温度。

爱因斯坦医学院的研究人员曾经证明，体温每升高1摄氏度，就能够减少6%的真菌感染。所以爬行动物和两栖动物会感染上千种真菌，而人类只会感染几百种真菌。

在最新的研究中，研究人员建立了一个数学模型，将避免真菌感染和维持体温的能量消耗作为变量，得出的最佳体温是37度左右，与我们人体正常体温及其接近。该研究成果发表在MBio杂志上。

温度太低我们就会受到真菌感染，温度太高又需要太多的能量。所以，37度，不低不高刚刚好。

安慰剂的"安慰"作用

They say medicine is as much an art as a science. But sometimes it seems more like a mystery. Take, for example, a new study that shows that sugar pills work, even when patients know they’re taking them. The findings appear in the Public Library of Science journal PLoS ONE. [Ted J. Kaptchuk et al., "Placebos without deception: A randomized controlled trial in irritable bowel syndrome"]

The placebo effect’s been well-documented. Patients who receive dummy pills often show clinical improvement. But in all studies to date, the patients believed they were receiving a real drug. Placebos work, doctors believed, because the mind is a powerful thing. Just thinking you’re being treated can make you feel better.

In this study, however, docs told patients they were getting placebos. Eighty patients with irritable bowel syndrome were instructed to take two sugar pills daily. The bottle even had “placebo” printed on it. After three weeks, 60 percent of the placebo group reported relief from symptoms, compared to 35 percent who’d received no treatment at all.

The doctors say it’s possible that the very act of ministering to patients may have a positive effect. Their findings will have to be repeated with more patients and other disorders. In the meantime, a sugar pill that can treat what ails ya is pretty sweet.

人们说，医学是一门艺术。但是有时候它看起来更像是一个迷。试想，譬如，一项新的研究显示，即使当病人们知道他们吃的是糖丸的时候，治疗也能起作用。这样的调查结果出现在科学公共图书馆-综合【Ted J. Kaptchuk以及其他作者，“无隐瞒安慰剂：过敏性结肠综合徵随机抽样试验“】

安慰剂效果证据充分。领取仿真药物的病患常常表现出临床改善。但是迄今为止的所有研究中，病患们相信的都是他们领到了真的治疗药物。

因为人的意志是颇强大的，医生们相信安慰剂起效了。只要认为自己正在接受治疗可以令你感到情况好转了。

然而，在本次研究中，医生告诉病人们他们拿到的是安慰剂。指示有八十名过敏性结肠综合徵病人每日得到两颗糖丸。给他们的药瓶上甚至还印有“安慰剂”的字样。三个星期后，安慰剂小组有百分之六十的病人报称病徵得到解除。而未经受任何治疗的小组的数字仅有百分之三十五。

医生们表示，有可能性是因为对病人的特别照顾起到了正面的效果。他们的发现将在更多的病人和别的病状中经常反复验证。在此期间，一颗糖丸就能治疗你的痛苦真是件甜蜜的事呀。

家庭年度总结 少总结多感受

Those holiday letters that summarize a family's year usually leave out the key component of the experiences: the feelings about what happened

节假日里，人们通常会把家庭琐事总结写信告诉别人，却往往忽视了最重要的东西--对这些经历的感受。

By now you may have written, or received, one of those epic holiday letters many people still send. “Dear Friends and Family, It’s been a busy year. We lost our beloved Spot…but we finally fixed the toilet!” Well, if you write these annual reports, take a look at your latest. Because scientists at North Dakota State University say that the style of these missives may reveal as much as their content.

The researchers have analyzed more than 1,200 holiday letters written over the past decade. Many follow the one-person-per-paragraph approach to storytelling. Others are formatted to look like newspaper articles. One was even written from the perspective of a deceased pet, reporting on the family’s activities from its resting place: sitting, stuffed, in the den.

More than 80 percent of the letters provide a bullet-point list of the year’s happenings. But only 5 percent talk about how major events—births, death, weddings, divorce—affected the writers personally. Such reflection is key to living life to the fullest, say the scientists in a paper published last year in the Journal of Happiness Studies. [Becky DeGreeff, Ann Burnett and Dennis Cooley, "Communicating and Philosophizing About Authenticity or Inauthenticity in a Fast-Paced World"]

So brag about your kids or complain about your bunions. Because there’s more to a good story than who, what, when, where. And how.

厨房工作人员与食物安全储存

研究发现，给厨师讲食品安全故事，比生硬的安全规定要有用多了。

Kitchen staff learned more from food safety stories about methods and consequences than from dry protocols. Cynthia Graber reports

‘Tis the season when we’re eating. And we want to be sure that the kitchen staff are following protocols that keep us from getting sick. So how best to help them learn those rules? The answer, it turns out, is to spin a good yarn. Because storytelling techniques can help teach safe kitchen practices, according to a study in the British Food Journal. [Benjamin Chapman, Tanya MacLaurin and Doug Powell, "Food safety infosheets: Design and refinement of a narrative-based training intervention". Also see foodsafetyinfosheets.com]

Researchers led by Ben Chapman at North Carolina State University wanted to evaluate the effectiveness of current food safety instructions. Most of these are prescriptive and are delivered as plain documents.

The researchers interviewed food workers and managers about the instructions. Based on these conversations, they created new versions of the food safety documents.

These updates included real-life stories of outbreaks of food-borne diseases, including what caused the problems and what the consequences were. They had short bites of information and bright, colorful graphics. And they were tailored to the kitchen staff readership and designed to generate discussion.

As a result, food workers were more likely to read the reports, discuss them and retain their lessons. Just shows that even if it’s just about cleaning the cutting board, everyone likes a good tale.

想啊想啊,就吃得少了

If you painstakingly contemplate eating the food you're about to dig into, there's a good chance you'll eat less of it. Karen Hopkin reports

‘Tis the season when many of us go on a seafood diet: we see food and we eat it. But if you want to avoid packing on the pounds, a new study suggests that you should spend more time thinking about food. Because the more of a thing you imagine eating, the less you’ll actually eat.

Common sense suggests that daydream eating is not the best idea. Once you picture a piece of pecan pie, chances are you’ll go out and get some. But what if you did more than give the pie or cookie or candy a passing thought? What if you mentally ate your fill?

To find out, scientists had people imagine eating M&amp;Ms. Thirty-three of them. One after another. They asked a second group to imagine an activity that was equally repetitive, but less filling: pumping 33 quarters into a clothes dryer. Then they put out a bowl of M&amp;Ms.

Sure enough, people who’d already maxed out on M&amp;Ms in their mind ate fewer than the folks who’d been doing their mental laundry. The results appear in the journal Science. [Carey Morewedge, Young Eun Huh and Joachim Vosgerau,"Thought for Food: Imagined Consumption Reduces Actual Consumption"]

So when visions of Haagen-Daz dance through your head, don’t think twice. Just pull up an imaginary spoon. And don’t skimp on the fantasy hot fudge.

对着即将入口的食物冥思苦想的话，很有可能会少吃一点的。

现在正是吃海鲜的好时节：我们看见食物然后吃掉它。但如果你不想在体重称上份量增加的话，一项新的研究会建议你花更多的时间想象一下食物。因为这些食物你越是想的多，实际你吃的越是少。

常识表明，整日幻想美食不是好办法。一旦你想到山核桃馅饼，很有可能就会出去买。但如果你不仅仅让馅饼或糖果饼干的念头一闪而过呢？如果在想象中吃个饱会怎样？

为了找到答案，科学家们让测试者想象在吃M＆Ms巧克力。一个一个吃总共要吃33个。科学家又要求第二组人员想象等同的重复动作，但与吃无关：往干衣机里塞东西33次。然后科学家拿出了一碗M＆Ms巧克力。

果然，脑子里已经撑爆了M＆M巧克力的人，比那些想着干洗的人吃得要少一些。这一结论发表在&lt;科学&gt;期刊上。 [Carey Morewedge, Young Eun Huh and Joachim Vosgerau著：想象食物：假想摄入减少了实际摄入]

因此，当哈根达斯出现在你脑子里的时候不需要三思而行。只要拿出一个虚构的勺子。还有千万不要吝啬对热软糖的幻想。

Biometrics 计量测定学

Clocking people's clocks 识别人们的行踪

Facial面部的-recognition识别 systems are getting better

WITH some pride, the FBI trumpeted大力鼓吹 *the news* [last month] that thanks to the agency's局 *facial-recognition system* Neil Stammer, wanted通缉 for *sexual assault*身体侵犯 and kidnapping绑架, had been apprehended逮捕in Nepal尼泊尔 after being *on the run* for 14 years.

The truth was slightly more prosaic（adj.）平淡无奇的. A *State Department*国务院 official had used the FBI's “Wanted（v.）通缉” posters海报 in *a test* for passport fraud诈骗. The system then matched与…配对 Mr Stammer's face with an American （calling himself *Kevin Hodges*） who regularly visited *the US embassy*大使馆（in Kathmandu尼泊尔首都） to renew续签 his visa签证. Still, *Mr Stammer*'s arrest illuminates *the growing importance* of facial-recognition识别 technology.

{主*The two main techniques* used to recognise认出 faces [electronically电子地]} 系are *principal最主要的-component成分 analysis分析* (PCA) / and *linear线性的-discriminant判别式 analysis* (LDA). Both compare *a picture* of someone's phizog面孔 with *a reference供参考的 image* （taken in a controlled environment）. *Passport photos* and *mugshots*面部照片, then, are about（adj.）在手头的 as ideal as it gets.

Basic *PCA and LDA* are good for *skin colour*, hair colour / and the like. Advanced systems, such as that used with British *biometric生物测定学 passports*, may look at cheek脸颊 bones, *the bridge*鼻梁 of the nose, jaw下巴 lines / and eyes.

*All of which* is fine [when someone is sitting or standing in front of a camera], but is less useful in the world （beyond the studio）. That requires a technique （called *Elastic有弹性的 Bunch束或串 Graph Matching* (EBGM)）, which tries to create *a three-dimensional (3D) model* from *two-dimensional images*. This model can, thereafter随后, be used to match any subsequent随后的 image, or *part* thereof（adv.）在其中.

EBGM considers考虑 the head as *a union* of two ellipsoids椭圆体: one （whose *main axis*轴线 is vertical垂直的）, and runs from *forehead*前额 to *chin*下巴; the other （whose *main axis* is horizontal水平的）, and runs from *tip*顶端 of the nose to *the back* of the cranium头盖骨. *This basic scheme*方案 is overlaid覆盖 with *“fiducial*基准的*” points* （which act as *anchors* for the modelling建立模型）. These can be *as few as* half a dozen (the pupils瞳孔 of the eyes, the corners角落 of the mouth, and so on), or as many, in one system, as 40,000.

EBGM allows *the construction*结构of *a three-dimensional representation*代理 of a face （from *poorly差劲地 lit照亮 images* （taken at *odd奇怪的 angles*））, such as *a closed-circuit*电路 *television camera* might provide.

[Once it recognises enough *fiducial points*] it can work out *what aspect* of a face （it is viewing注视）. It then extrapolates推算 *the expected positions* of other *fiducial points*.

随着As *more data* come in from the camera, *the model's shape* is updated. Given *enough horsepower*马力, says a British official, *such a system* can build a model from *as few as* 80 pixels （located between a subject's eyes）—and only two images are needed for *a 3D reconstruction*.

Governments are not *the only ones* interested. Earlier this year, Facebook's *DeepFace system* was asked whetherthousands of *pairs一对 of photos* were of the same person. It answered [correctly] 97.25% of the time, *a shade* behind humans at 97.53%. Although DeepFace is only *a research project*, and is aided援助 by *the fact* that many Facebook photos are tagged加标签于 with *the names* of people in the images, which lets the system learn those faces [in different poses / and lighting conditions], it is still *an impressive feat*功绩.

As DeepFace shows, access （to *an accurate gallery*画廊 of images） is crucial至关重要的. Passport photos, or *those* （on national identity cards）, can act as such galleries, 因为as they can be rendered给予帮助 by EBGM into usable可用的 3D models. Add in *the increasing ubiquity*（n.）到处存在 of closed-circuit television, and *the idea* （that anyone will be able hide for long in Nepal, or anywhere else）, looks quaint古雅的.

面部识别系统愈发完善

上个月，在FBI面部识别系统的帮助下，因性侵犯和绑架而被通缉长达14年的Neil Stammer在尼泊尔落入法网。FBI对此大肆宣传，还带着点小骄傲呢~ 经过可能较为平淡。一名国务院官员使用FBI的通缉海报来测试护照欺诈行为。然后系统识别出，Stammer的面部同一名自称Kevin Hodges的美国人相符。后者经常到美国驻加德满都大使馆去更新他的签证。不过，Stammer的落网，说明面部识别技术日益重要。

电子识别人脸的两种技术分别为主成分分析（PCA）和线性判别分析（LDA）。两种方法都是通过在特定环境下比较某人的面部和参照图片。碰巧，护照照片和疑犯照片是最理想化的。

基本的PCA和LDA擅长处理肤色、发色等。先进系统，比如英国计量生物学护照所采用的，可能会记录面颊骨骼，鼻梁，下颌轮廓以及眼睛。

在人正坐在或者正立在摄像头前的时候，所有这些标准都好办，但是在摄影棚外就不那么有用了。这要求一种名为弹性束图匹配（EBGM）的技术，该技术力求通过2D图像创建一个3D模型。因此这个模型就能用于匹配任何相关图片，或其中的部分。

EBGM将头部视为两个椭圆的结合体。一个的主轴是垂直的，从前额到下巴；另一个的主轴是水平的，从鼻尖到头盖骨后侧。基本方案是通过确定基点位置，定位模型尺寸。基点少则6个（瞳孔，嘴角，等等），多则可能在一个系统中达到40000个。

EBGM可以将小角度拍摄的暗光照片，比如闭路电视所提供的，塑造为三维模型。一旦它捕捉到了足够的基点，系统就能计算出它所观测的是面部的那个位置。然后系统推断出其他基点的预期位置。随着摄像头提供的数据增多，模型的形状不断更新。如果有足够动力，比如英国官方要求，只需要两张照片，像素少到在人物的眼睛中只有80个像素，这个系统就能偶建立出3D复原模型。

并不只有政府对此感兴趣。今年早些时候，有人拿脸谱的“深脸”系统测试了成千上万张照片，看他们是否是同一个人。其正确率为97.25%，在人背后后有阴影的情况下识别率为97.53%。尽管深脸只是研究项目，并且脸谱上的许多照片都是贴着人的姓名这个情况给出了一定帮助，使得系统能够辨别出不同姿势、不同采光下的人脸，但是这个成果仍旧令人瞩目。

正如深脸所显示的，想精确识别大批量图案依然困难重重。护照照片，或者那些用在国民身份证上的，可以作为这种相片管理系统，因为他们可以由EBGM转述为实用3D模型。再考虑到闭路电视的普及，那么任何一个人，想要在尼泊尔或者其他任何地方藏起来的这种想法都会变得不切实际。

1. Facial recognition [ˈfeɪ-ʃəl ˌrekəɡ-ˈni-ʃən] 面孔识别

→Facial [ˈfeɪ-ʃl] adj.面部的;脸上的

→recognition n.认识;识别;认出

1. trum-pet [ˈtrʌm-pɪt] v.大力鼓吹;积极宣扬;大力宣传。n.喇叭
2. agency [ˈeɪdʒənsi] ①经销；代理；经销店。②（政府的）局，处，署，专业行政部门

Webster is retiring as *head* of *the Central Intelligence Agency* (CIA). 韦伯斯特即将从中央情报局局长的位子上退职。

1. want v.通缉;缉拿
2. assault [əˈsɔ:lt] n.人身攻击；殴打；（身体）侵犯
3. kidnappingn. 诱拐，绑架
4. appre-hend [ˌæ-prɪ-ˈhend] v.①逮捕；拘押。②了解;明白
5. Nepal [nə'pɔ:l] n. 尼泊尔
6. pro-saic [prə-ˈzeɪk] adj.枯燥的；乏味的；平淡无奇的
7. State Department n. （美国）国务院
8. poster n.大幅广告；海报；招贴画
9. fraud [frɔ:d] n.诈骗;欺诈。诈骗者;骗人的东西
10. match v.

→something of *a particular colour or design* matches another thing（颜色、样式等）与…相称，与…相配

→something such as *an amount or a quality* matches with another amount or quality（数量或质量）比得上,与…不相上下,使一致

→one thing matches another与…配对;与…匹配（match up = match）

·The students are asked to match the books with the authors... 要求学生把书籍与作者对应起来。

1. embassy[ˈembəsi] n.（统称）使馆官员;大使馆
2. Kath-man-du [ˈkɑ:t-mɑ:n-ˈdu:] n. 加德满都（尼泊尔首都）
3. renew v.延长(执照、合同等)的有效期;使续签。重新开始;更新
4. visa n.（护照的）签证
5. illu-mi-nate [ɪˈlu:-mɪ-neɪt] v.①照亮;照明;照射。②阐释;说明

·The black sky was illuminated by forked lightning. 叉状的闪电照亮了黑沉沉的天空。

·They use *games and drawings* to illuminate their subject. 他们用游戏和图画，来阐明他们的主题。

1. recog-nise ['rekəg-naɪz] vt. 认出，识别出某人[某事物]
2. electronically [ɪˌlek-ˈtrɒ-nɪkli] adv. 电子地；以电子方式
3. prin-cipal [ˈprɪn-səpl] adj.首要的；最主要的；最重要的

·{*The principal reason* for my change of mind} is this. 这是我改变主意的最主要原因。

·...*the country's principal source* of foreign exchange earnings... 这个国家最主要的外汇收入来源

1. com-po-nent [kəm-ˈpəʊ-nənt] n.组成部分;成分。adj.组成的;构成的

·*Polish workers* will now be making *component parts* for Boeing 757s. 现在波音757飞机的组成部件，将由波兰工人制造。

1. naly-sis [ə-ˈnælə-sɪs] n. 分析，分解

Principal components analysis，PCA主成分分析

1. linear adj.（过程或发展）线性的。（运动或力）成一直线的，沿直线的
2. dis-crimi-nant [dɪs-'krɪ-mɪ-nənt] n. 判别式
3. compare v.比较;对比
4. phi-zog [fɪ-'zɒɡ] n. 脸，面孔
5. reference n. 参考；参考书。adj.（书）供参考的。v. 引用；参照
6. mug-shot [ˈmʌg-ʃɒt] n. <俚>脸面照片；大头照；嫌疑犯照片
7. about

→someone or something is about, adj.在手头的;现成的;能得到的

There's *lots of money （about）* [these days] for *schemes* （like this）. 近来这类计划资金充足。

→there is a particular quality about someone or something 介词（某人或某事物）具有（某种特性）

There was *a warmth and passion* （about him） I never knew existed... 他身上有一股我从不知道的热情和激情。

1. bio-me-tric [ˌbaɪəʊ-ˈme-trɪk] ADJ生物统计学的，计量生物学的，生物识别
2. bridge n.鼻梁
3. jaw n.下巴；下颌
4. Elas-tic [ɪ-ˈlæs-tɪk] n.松紧带;橡皮筋。adj. ①有弹力的；可伸缩的；灵活的。②（想法、计划、政策等）有通融性的，灵活的，能变通的
5. Bunch n.一伙，一群（人）。一束（花）；一串（香蕉或葡萄）；一串（钥匙）。（扎在女子脑后两侧的）发辫。v.(衣服）打褶

*A bunch* of people

She clutches *the sides* of her skirt / until it bunches（v.） around *her waist*. 她捏着裙子的两侧，直到裙子在她腰部打起了褶。

1. Matching n. adj. v. 使…相配(match的ing形式)

...a coat / and *a matching handbag*. 大衣和与之相配的手提包

1. there-after adv.之后;此后;随后

Inflation will fall / and thereafter so will interest rates... 通货膨胀率将下跌，随后利率也将下降。

1. sub-se-quent [ˈsʌb-sɪ-kwənt] adj. 后来的；随后的；作为结果而发生的；附随的

*Those concerns* were overshadowed by *subsequent events*. 随后发生的事，使之前所关注的那些问题显得无足轻重。

→something happened subsequent to something else在…之后;继…之后

They won *only one more game* subsequent to *their Cup semi-final* win last year. 继去年在杯赛半决赛中获胜后，他们仅又赢过一场比赛。

1. there-of [ˌðeər-ˈɒv] adv.其;在其中

...*his belief* in God — or the lack thereof. 他对上帝的信仰——或者不信仰

...*a charge* of £20 per hour or part thereof. 一小时或不足一小时，收费 20 英镑

1. consider v. 考虑；把（某人，某事）看作…，认为（某人，某事）如何
2. el-lip-soid [ɪ-'lɪp-sɔɪd] n. adj. 椭圆体
3. axis [ˈæk-sɪs] n.（假想的）轴;轴线。（坐标）轴
4. vertical [ˈvɜ:tɪkl] adj.垂直的;直立的
5. fore-head n.前额;额头
6. chinn.颏;下巴
7. hori-zon-tal [ˌhɒrɪ-ˈzɒn-tl] adj.水平的;横的
8. tip末梢;尖端;顶端
9. cra-nium [ˈkreɪ-niəm] n.颅;头盖骨
10. scheme n. (政府或其他组织的)计划，方案，安排
11. over-lay [ˌəʊvə-ˈleɪ] v. n.

→something is overlaid with something else在…上覆盖（或铺、涂）

·The floor was overlaid with *rugs* of oriental design. 地板上铺着东方风情的地毯。

·...woollen cloth, overlaid with gold and silver embroidery. 缝着金银绣花的呢子

→something is overlaid with a feeling or quality （以某一情感、特性等）遮掩

·The party had been overlaid with a certain nervousness. 这个聚会一直笼罩在不安的气氛中。

·..*.a surge* of feeling （which [at this moment] overlaid all others）. 此刻突然迸发出来、盖过了其他种种情绪的情感

1. fiducial [fɪ-'dju:-ʃjəl] adj. ①【测】基准的。②有信仰的。③可靠的, 信赖的, 信用的

·Introduced *the scope* of business of fiducial characteristic / and trust company. 介绍了信托的特点和信托公司的业务范围.

1. modelling n.模型制作； 建立模型
2. The pupils of your eyes n.瞳孔（直译：眼睛的“小学生”就是瞳孔）
3. repre-sen-tation [ˌre-prɪ-zen-ˈteɪ-ʃn] n. ①代表;代理。②描写;描绘;体现;象征。③投诉;交涉;要求

·*Puerto Ricans* are U.S. citizens / but they have no *representation* in Congress. 波多黎各人是美国公民，但是他们在国会里没有代表。

·..*.a lifelike representation* of Christ... 对基督的生动描绘

·We have made *representations* to ministers / but they just don't seem to be listening. 我们已经向部长们提出了抗议，但是他们却装聋作哑。

1. poorly adv. 穷困地；差劲地；看不起地
2. light v.照亮；照耀adj.（自然）光线充足的。n.角度；（事物呈现的）状态something is presented in a particular light

·He has worked hard [in recent months] to portray描画 New York in a better light. 最近几个月里他努力从更积极的角度来描绘纽约。

1. circuit [ˈsɜ:kɪt] n.①电路;(电流的)回路。②（尤指工作时的）巡回线路，巡回，巡游。③赛车道。

closed circuit n.闭路式电视

1. ex-trapo-late [ɪk-ˈstræpə-leɪt] v. （由已知资料对未知事实或价值）推算，推断
2. pair n.双；对；副
3. Aid v. n.援助;救助;资助
4. tag v.①给…贴标签;在…上做记号。②将…描述成;用…来称呼;把…称作

·...*the pundits* were still tagging him with that *age-old label*, 'best of a bad bunch'... 专家们仍用多年前的称呼“最好的坏人”来称呼他。

1. feat n.功绩;伟业;壮举
2. gallery（艺术作品的）陈列室，展览馆；画廊
3. render [ˈren-də(r)] v. ①给予(帮助);提供(服务)。②翻译

·Any assistance （you can render him） will be appreciated... 无论给予他何种帮助，他都会非常感激。

1. Add in加入;把…算在内
2. ubi-quity [ju:'bɪ-kwətɪ] n.无所不在；随处可见
3. quaint [kweɪnt] n.奇特的；古色古香的;古雅的

·{That's how concepts like general welfare} start to sound quaint in this age. 就这样，民众福利这一类概念，在这个时代开始变得陈旧起来。

Chinese patents专利

Mainland companies are building up使逐渐增加 their *intellectual property*知识产权

CHINA'S leaders see patents as rungs阶梯 on the ladder to becoming an innovation创新 powerhouse强大的组织. So *in five-year plans* and through subsidies津贴 and *official exhortations*（n.）敦促劝诫, they have encouraged locals to file提出申请 patents. And locals have responded with gusto（n.）兴致.

[Two years ago] *China's patent office*中国专利局 became the world's busiest. Sceptics怀疑论者 have scoffed嘲笑 that *most of those filed* are “utility model实用新型” patents——short-term ones （granted承认 for *relatively相对而言 trivial微不足道的 ideas*）, as opposed to相对于 proper真正的 *“invention” patents*——and that *few Chinese inventors* have won patents in *countries* （where *standards* are higher）.

Many patents, it is also argued主张认为, are exercises in quota（n.）配额指标-filling by academics, with no hope of commercialisation（n.）商业化. In short简而言之, these patents are a sham赝品.

Not quite不完全是, argues the UN's World Intellectual Property Organisation (WIPO). A new study scrutinizes详细检查 Chinese patents / and concludes that a small but rapidly growing proportion are up to world standards.

The WIPO included only patents （filed by Chinese residents居住者）—that is, *those* （with a Chinese address）—（who filed their patents [first] on the mainland）. So, inventions （by *the Shanghai labs* of GE or Philips） are not included, since Western multinationals跨国公司 typically（adv.）通常 file [first] in America or Europe.

Foxconn, a manufacturing制造业 goliath巨人 （controlled by *Hon Hai* of Taiwan）, is included in the study / because, unlike other Taiwanese台湾人的 firms, it resides in China / and files its patents first on the mainland.

The findings challenge conventional传统的 wisdom一般观点 [in several ways在多方面]. Not only do they show that the number of Chinese patents （filed abroad） is rising sharply (see chart). They also show that, since 2003, most of these have been invention patents, not utility-model ones.

Finally最后要说的是, the firms （topping *the rankings*排名表 of foreign *patent applications*申请） are also revealing揭露. Some, like Huawei and ZTE, are unsurprising: 29% of all foreign filings提出请求 from 2005 to 2009 were in *information and communications technology*.

Lenovo comes in at 16th. Others, like Sinopec中石化 in oil and gas, and BYD in batteries电池, suggest表明 *the energy industry* is rising.

The surprise is that *three of the top five spots*地点 are held by divisions部门 of Foxconn. By 2012 it had filed more than 12,000 patents abroad, in areas from electrical machinery电力机械 to computer technology to audio-video technology. *A firm* some scorn鄙视 as a low-tech sweatshop血汗工厂 turns out to be a model of invention.

中国专利

越来越具创造性

内地企业正在建立自己的知识产权

中国的领导人们认为，专利便是通往创新大国那扶梯上的横档。因此，不论是在五年计划里，还是经由种种补贴和官方规诫，他们一直鼓励国人申请专利，而国人也对此颇为捧场，两年前，中国专利局一跃成为世界上最繁忙的专利机构。怀疑论者对这些专利嗤之以鼻，他们认为，大多数人申请的都是“实用新型”专利，与正式的“发明”专利不同，这类短期专利价值不高。而且，对那些专利门槛颇高的国家而言，很少有中国发明人能入其法眼。

也有另一种说法称，许多专利是学者们纯粹为了定量完成任务而练手的结果，并没有将其商业化的期许。说白了，这些都是伪专利。不过在联合国世界知识产权组织（WIPO）看来，也非尽然如此。一项审视中国专利的新研究得出结论，称其占比虽小，但迅速增长的比例已达到世界标准。

世界知识产权组织仅将中国居民申请的专利列入统计—这包含两个概念：申请人居住在中国，且是在内地首次注册专利。而由于西方跨国公司通常会先在美国或欧洲申请专利，通用和飞利浦的上海实验室做出的发明便不包括在统计之列。之所以台湾鸿海集团旗下的制造业巨擘富士康包括在此项研究之内是因为和其他台商不同，它的驻地在中国，且是在内地首次注册专利。

该研究结果在许多方面挑战了传统认知。他们不仅表明在国外申请的中国专利数量急剧上升。还表明自2003年以来，这些专利大部分都是费了番脑子的发明，而非中看不中用的“实用新型”绣花枕头。

而值得注意的是，国外专利申请排名靠前的公司也慢慢冒头。华为和中兴之类的企业跻身其中不足为奇：2005至2009年，源自信息和通信技术行业的专利申请占国外专利市场的29%。联想位列第16位。而出现在名单上的其他公司，像石油和天然气领域的中石化，以及电池行业的比亚迪，都意味着能源产业的崛起。

出人意料的是，名单上排名前五的公司有三位是由富士康的部门占据。至2012年为止，富士康已在国外申请超过12000项专利，覆盖面从电机到计算机技术，再到音视频技术。被一些人所轻视的低技术含量的血汗工厂到头来居然是发明界的典范。

1. pa-tent ['pæ-tnt] n. 专利;专利品;专利权;专利证。adj. 专利的;显然，显露;明摆着的。vt. 获得…专利，给予…专利权;取得专利权
2. Ever more inventive（adj.）越来越具创造性

in-vent-tive [ɪn-ˈven-tɪv] adj. 发明的;善于发明的;有创造力的;独出心裁的

1. intellectual property 知识产权

→intel-lec-tual [ˌɪntə-ˈlek-tʃuəl] adj. 智力的;有才智的;需用智力的;智力发达的。n. 知识分子;脑力劳动者;有极高智力的人;凭理智（而非感情）办事的人

→pro-perty ['prɒ-pətɪ] n. 特性，属性;财产，地产;[戏]道具;所有权

1. rung [rʌŋ] n. 阶梯，梯级;（地位等的上升）一级;（椅子等）横档。v. 把…圈起来( ring的过去分词)
2. inno-vation [ˌɪnə-ˈveɪ-ʃn] n. 改革，创新;新观念;新发明;新设施。
3. power-house [ˈpaʊə-haʊs] n. 权势集团；强国。强大的集团[组织]；精力充沛的人，身强力壮的人；动力室。
4. through [θru:] prep.通过，穿过；经由；透过；凭借
5. sub-sidy ['sʌb-sədɪ] n.补贴；津贴；助学金；奖金。
6. ex-hor-tation [ˌeɡ-zɔ:-'teɪʃn] n.敦促；极力推荐；（正式的）演讲；（宗教仪式中的）劝诫
7. exhort v.规劝；劝诫；劝告
8. locals ['ləʊklz] n.以复数形式泛指“当地人”；当地人( local的名词复数 )；（沿线每站都停的）公共汽车；住处附近的当地酒店；地方分会。
9. file [faɪl] vt.提出（离婚诉讼或其他讼案）；把…归档；用锉锉；发稿，寄给报社。 vi.发送（报道给报社）；排成一行行走；提出申请。 n.文件夹；卷宗；纵列；锉刀。

→v.提起（诉讼）；提出（投诉、请求等）

A number of them have filed formal complaints against the police... 他们中的许多人都对警方提出了正式控告。

I filed for divorce [on the grounds] of adultery [a few months later]. 几个月后，我以通奸为由提起了离婚诉讼。（①di-vorce [dɪ'vɔ:s] n.离婚；分离。 vt.与…离婚；分离。 vt.& vi.与（某人）离婚，判（某人）离婚。 ②adul-tery [ə'dʌl-tərɪ] n.通奸，私通；通奸行为。）

file patents申请专利

1. gusto ['ɡʌs-təʊ] n. （做某事的）热情，兴致，精力

→Hers was a minor part, but she played it with gusto. 她演的是个小角色，但是演得很投入。

1. China's patent office 中国专利局
2. scept-ic [ˈskep-tɪk] n.多疑者；怀疑宗教的人；无神论者；怀疑论者
3. scoff [skɒf] v. n.①嘲笑，嘲弄；②掠夺，攫取；狼吞虎咽

*At first* I scoffed at the notion... 刚开始我对那种想法嗤之以鼻。

You may scoff but I honestly feel I'm being cruel only to be kind... 你可能不以为然，但我真的认为我狠下心来只是出于一片好意。

1. filed [faild] v.提出（离婚诉讼或其他讼案）( file的过去式和过去分词 )；把…归档；用锉锉；（法院或其它行政机关）定案
2. uti-lity [ju:ˈtɪ-ləti] n.①功用；效用；实用。②公用事业

He inwardly（adv.）在内心 questioned *the utility* of his work. 他内心质疑自己的工作是否有用。

...public utilities such as gas, electricity and phones. 煤气、电和电话等公用事业

1. utility model 实用新型（约十个国家法律承认的一种保护发明名称，期限五年）

「实用新型」是指对产品的形状、构造或者其结合所提出的适于实用的新的技术方案，又称小发明或小专利。它的创造性和技术水平，较「发明专利」低，但实用价值大，在专利权审批上采取简化审批程序、缩短保护期限、降低收费标准办法加以保护。

1. short-term adj. 短期的
2. grant [ɡrɑ:nt] vt.承认；同意；准许；授予。 n.拨款；补助金；授给物（如财产、授地、专有权、补助、拨款等）。vi.同意
3. rela-tively [ˈrelə-tɪvli] adv.关系上地；相对地；比较地；较比。
4. tri-vial ['trɪ-vɪəl] adj.琐碎的，无价值的；平常的，平凡的；不重要的；微不足道的；[生]种的。
5. as opposed to (表示对比)而,相对于，与⋯⋯相对

As opposed to black / white usually has a positive connotation. 与黑色不同，白色常有肯定的含义。

1. proper ['prɒpə(r)] adj.严格意义上的；真正的；本身的

A distinction（n.）差别不同 must be made between archaeology proper and science-based archaeology. 必须区分考古学本身和以科学为基础的考古学。

1. also ['ɔ:lsəʊ] adv.①而且；还；此外。②也；亦。conj.另外。

He is an asthmatic who was also anaemic... 他是个曾患贫血症的哮喘患者。

His father, also a top-ranking officer, had perished during the war... 他的父亲，也是位高级军官，在战争中牺牲了。

1. quo-ta [ˈkwəu-tə] n.①定量；定额；配额。②（给予某团体的）限额，配额。

*The quota of* four tickets per person had been reduced to two. 每人可购买的票的限额已经由四张降至两张。

They have *the usual quota* of human weaknesses, no doubt. 毫无疑问，他们身上也有人所共有的弱点。

1. commercia-lisation [kə-ˌmɜ:ʃə-laɪ-'zeɪ-ʃən] n.商业化。
2. in short 简而言之，总之;一句话;简言之
3. sham [ʃæm] n.赝品；假冒；骗子；套；枕套。vt.假装。vi.掩饰。adj.虚假的，假装的。
4. Not quite并非完全，不完全是

I'm not quite sure where that came from. 我不太清楚这个传统的起源。

1. scru-ti-nise [skru:-'tɪ-nɪs] vt.详细检查，细看(scrutinize)。vi.作详细检查，细阅。
2. pro-por-tion [prə-ˈpɔ:-ʃn] n.比，比率；[数学]比例（法）；面积；相称，平衡。vt.使成比例；使相称；使均衡。
3. resi-dent [ˈrezɪ-dənt] n.居民;住户;居住者。adj. （在某地）居住的，居留的
4. multi-natio-nal [ˌmʌlti-ˈnæ-ʃnəl] adj.多国的；跨国的。n.跨国公司
5. typically [ˈtɪpɪ-kli] adv.①通常；一般地。②典型地；有代表性地。③一贯地；一向如此地；不出所料地

It typically takes a day or two, depending on size... 一般需要一到两天，取决于其规模。

The main course was typically Swiss… 主菜是地道的瑞士菜。

Typically, the Norwegians were on the mountain two hours before anyone else... 像往常一样，挪威人比其他所有人都提前两小时进山。

1. Foxconn n.富士康（公司名）
2. manu-fac-turing [ˌmæ-njʊ-'fæk-tʃə-rɪŋ] n.制造业，工业。adj.制造业的，制造的。v.（大规模）制造( manufacture的现在分词 )；捏造；加工；粗制滥造（文学作品）。
3. go-lia-th [ɡə-'laɪə-θ] n.移动式巨型起重机; 巨人歌利亚
4. Taiwa-nese [ˌtaɪwɑ:-'ni:z] adj.台湾的，台湾人的。n.台湾人。
5. reside [rɪ'zaɪd] v.①居住；定居。②存在于；属于（a quality resides in something,）

All single full-time students must reside in university residence halls. 所有单身的全日制学生都必须住大学宿舍。

Happiness does not reside in strength or money... 幸福不是由实力或金钱决定的。

1. con-ven-tional [kən-'ven-ʃənl] adj.①（行为、观念等；方法或产品）传统的，符合习俗的。②(武器、战争等)常规的，非核的。
2. wisdom ['wɪz-dəm] n.①智慧;才智。② (社会或文化长期积累的)知识，学问。③一般观点;普遍看法
3. invention patents发明型专利
4. finally adv. （用于引出观点等）最后，最后要说的是
5. top v.①为…之首；居…之冠。②高过；超过；多于。③覆盖；放在…的上面。④胜过；压倒

It was the first time a Japanese manufacturer had topped the list for imported vehicles... 这是日本制造商初次占据进口车排行的首位。

Imports topped £10 billion last month... 上个月进口总额超过了 100 亿英镑。

To serve, top the fish with the cooked leeks. 上菜时，把炒好的韭葱覆在鱼上。

...the glass-topped table. 玻璃面餐桌

How are you going to top that? 你怎样超过那个？

1. ranking [ˈræŋkɪŋ] n. ①（最优秀选手的）排名（表），名次表。②等级；名次。adj.（常指政治团体中的成员）首位的，最高级别的

社会地位，社会阶层；顺序，次序；行列；军队。adj.头等的；高级的；超群的。

...*the ranking Republican* on the senate intelligence committee. 参议院情报委员会中最资深的共和党人

...*the ranking American diplomat* in Baghdad. 美国在巴格达的首席外交官

1. appli-cation n.申请；请求；申请书；申请表。

patent applications专利申请书

1. suggest v.暗示;表明;显示

Earlier reports suggested that a meeting would take place on Sunday... 早先的报道暗示周日可能会召开会议。

健身与长寿的关系 Exercise and Longevity（n.）长寿

系Worth 表*all the sweat*

Just {why exercise is so good for people} is, at last, being understood

{ONE sure *giveaway*赠品 of quack庸医medicine} is *the claim* （that a product can treat any ailment小病）. There are, sadly, no panaceas灵丹妙药. But some things come close, and exercise is one of them.

As doctors never tire of厌倦 reminding people, exercise protects against *a host of*大量 illnesses, from heart attacks and dementia老年痴呆症/ to diabetes糖尿病 and infection传染病. How it does so, however, remains surprisingly mysterious.

But *a paper* （just published in *Nature*） （by *Beth Levine* of *the University* of Texas Southwestern Medical Centre / and her colleagues）） sheds some light on *the matter*.

*Dr Levine* and *her team* were testing *a theory* that exercise works *its magic*对…产生(神奇的影响), at least in part, by promoting促进 autophagy细胞自噬. This process, （*whose name* is derived源于 from the Greek for self-eating）, is *a mechanism*机制 （by which surplus过剩的, worn-out精疲力竭的 or *malformed畸形的 proteins蛋白质* and *other cellular细胞的components成分*are broken up使破碎 for scrap碎片/ and recycled回收利用）.

To carry out the test, Dr Levine turned to those *stalwarts*可靠者 of medical research, *genetically modified*转基因的 mice.

Her *first batch*一批 of rodents啮齿动物 were tweaked对…作微调 so that 主their autophagosomes自噬体, （structures结构（*that* form形成 [around *component*s]） （which have been marked把…标示为 for recycling））—谓glowed green.

After these mice had spent half an hour on a treadmill跑步机, she found that *the number* of autophagosomes （in their muscles） had increased, and it went on increasing / until they had been running [for 80 minutes].

To find out what, if *anything*, （this exercise-boosted由锻炼促进的 autophagy自噬 was doing for mice）, the team engineered设计制造 a second strain压力重负 that was unable to respond this way. Exercise, in other words, failed to stimulate刺激 their recycling循环利用 mechanism.

When this second group of modified mice were tested alongside *ordinary ones*, they showed less endurance耐久力 / and had less ability to take up把…接着进行下去 sugar from their bloodstreams血流.

There were *longer-term effects*, too. In mice, as in people, regular exercise helps prevent diabetes糖尿病. But when the team fed *their second group of modified mice* a diet designed to induce引起diabetes, they found that exercise gave no protection at all.

Dr Levine and her team reckon估计认为{*their results* suggest that manipulating操纵 autophagy自我吞噬 may offer a new approach途径 to treating治疗 diabetes}.

And *their research* is also suggestive（adj.）富于暗示的 in other ways.

Autophagy自我吞噬 is *a hot topic* in medicine医学, as biologists生物学家 have come to realise that it helps protect the body from all kinds of ailments微恙小病.

The virtues德行价值 of recycling再循环

Autophagy is an ancient mechanism, shared by all eukaryotic真核状态的 organisms有机体. It probably arose出现 as an adaptation（n.）适应 to scarcity（n.）缺乏 of nutrients营养物质. Critters生物 （that can recycle parts of themselves for fuel燃料） are better able to cope with成功地应付 lean萧条的 times than those that cannot.

But [over the past couple几个 of decades], autophagy has also been shown to be involved in things as diverse，as包括例如 fighting *bacterial infections*细菌感染 and slowing *the onset（n.）不快之事的开始 of* neurological神经系统的 conditions健康问题 like Alzheimer's老年性痴呆 and *Huntington's diseases*亨廷顿舞蹈症. Most intriguingly引人入胜的 of all, it seems that it can slow the process of ageing变老.

Biologists have known [for decades几十年来] that feeding animals （near-starvation（n.）极度饥饿） diets日常饮食 can boost their lifespans预期生命期限 dramatically戏剧性地. Dr Levine was a member成员 of the team （which showed that 主{*an increased level* of autophagy自我吞噬, brought on引起导致 by *the stress* of living in *a constant state* of near-starvation饥饿}, 谓was *the mechanism*机制 （responsible for *this life extension*延伸））.

The theory理论 is that {what are being disposed of将…处理掉 in particular*尤其特别* are worn-out磨损了的 mitochondria线粒体}. These structures are a cell's *power-packs*动力单元. They are where glucose葡萄糖 and oxygen react together to release释放 energy. Such reactions, though, often create damaging有破坏性的 oxygen-rich molecules分子 called *free radicals*自由基, which are thought to be one of *the driving强有力的 forces* of ageing老化.

Getting rid of除掉 wonky歪斜的 mitochondria线粒体 would reduce free-radical production / and might thus slow down ageing.

A few anti-ageing抗衰老 zealots狂热者 already subsist on依靠…生活 near-starvation diets, but *Dr Levine's results* suggest a similar effect might be gained [in a much more agreeable宜人的 way], via凭借 vigorous体育活动强度大的 exercise.

*The team's next step* is to test whether boosted促进 autophagy自我吞噬 can indeed explain解释说明 *the life-extending effects* of exercise. That will take a while（n.）一段时间. Even in animals as short-lived as mice, she points out, studying ageing is a long-winded冗长的 process. But she is sufficiently充分地 confident（adj.）有信心的 about the outcome that she has, in the meantime, bought herself a treadmill踏车跑步机.

锻炼与长寿

出点汗，值了！

为什么锻炼有利于身体健康呢，人们终于知道答案了

有一种绝对能推销出去狗皮膏药的方法，就是说它包治百病。遗憾的是灵丹妙药并不存在。但有些方法却起到类似的作用，锻炼就是其中之一。

医生们一直不厌其烦地提醒人们锻炼身体有助于防范一系列疾病，包括心脏病、痴呆症、糖尿病以及感染。但是人们一直不知道为什么。德克萨斯大学西南医学中心贝丝莱文及其同事，最近在《自然》杂志发表的论文给出了一些解释。

莱文博士及其小组证明一个理论的正确性，即锻炼之所以有神奇的作用，部分原因是它能促进自体吞噬。这个名称来自希腊词语自食其肉，指的是多余的、不能再用的、畸形的蛋白质，和其他细胞成分，被分解成碎片并再循环。

莱文博士在这个实验中使用转基因老鼠作为实验对象，医学研究中经常使用转基因老鼠。

第一组老鼠被调整使得其细胞中的自噬体发出绿光，这种结构形成的部分被用于再循环。这些老鼠被放在跑步机上半个小时后，莱文博士发现它们肌肉中的自噬体增加了，直到跑了80分钟才停止增加。

为了找出这种由锻炼刺激的自噬作用，对老鼠有什么作用，研究小组设计了另一组不能如此反应的老鼠。换句话说，锻炼并没刺激再循环机制。

当第二组的转基因老鼠和普通老鼠一起接受实验时，它们的耐力逊于后者，也不能很好地从血液中吸收糖分。

还有长期影响。老鼠和人一样，定期锻炼有助于预防糖尿病。但是在研究小组给第二组转基因老鼠喂了一种专门用来诱发糖尿病的食物后，他们发现锻炼并没有任何预防效果。

莱文博士及其小组认为，实验结果表明，受到操纵的自噬作用，有可能提供一种新的治疗糖尿病的方法。他们的研究在其他方面也有启示。自噬作用在医学界是个热门话题，因为生物学家逐渐意识到它能抵御各种小病。

再循环的功效

自体吞噬机制很古老，所有真核生物都有。它的产生可能是为了适应营养物质的缺乏的环境。有些家畜能循环利用它们身体的一部分作为养料，这样的动物比其他的动物在食物匮乏期更容易生存。

但是在过去几十年里，自体吞噬在其他很多地方也有所体现，比如对抗细菌感染、放缓老年痴呆症和亨丁顿舞蹈症等神经症状的发病。最有趣的是，看起来它还延缓了老化过程。

生物学家几十年来都知道，在动物保持接近饥饿的状态下喂食，能大幅度提高它们的寿命。莱文博士曾经工作的一个小组证明，在长期接近饥饿的状态下生存的压力，引起了自体吞噬水平的提高，这种原理使得寿命延长。

被处理掉的其实是衰弱的线粒体。这种结构给细胞提供能量。在线粒体里，葡萄糖和氧气共同作用释放能量。不过这种反应却常常制造出有害的富氧分子，即自由基，它是促成老化的原因之一。除掉没用的线粒体可以减少自由基的生成，这样就可能减缓老化过程。

一些反老化的狂热分子，已经开始靠保持饥饿状态的饮食为生了，但是莱文博士的实验结果表示，通过积极锻炼身体这样一种更随和的方式，也能得到类似的效果。

该小组下一步将测试，被激发的自体吞噬是否真的能解释锻炼有助于长寿。这尚需时间方能出结果。她指出即使研究像老鼠这样寿命很短的动物，也是长期曲折的过程。但是她对结果非常自信，于此同时还给自己也买了一个跑步机。

1. lon-gevity [lɒn-ˈdʒe-vəti] n.长寿；长命
2. something is worth a particular amount of money （系动词） 价值;值…钱
3. giveaway n. ①暴露真相的事物. ②（通常为吸引顾客而派发的）赠品. adj.低廉的；廉价的

*The only giveaway* was *the look* of amusement （in her eyes）. 唯独她俏皮的眼神使事情露馅儿了。

giveaway prices 低廉的价格

1. quack [kwæk] n.庸医；江湖郎中；冒牌医生. v.(鸭子)发出嘎嘎声

→（adj.）Quack remedies or quack cures 江湖医术;骗人的医术

1. ailment [ˈeɪl-mənt] n.疾病；病痛；（尤指）微恙
2. panacea [ˌpænə-ˈsi:ə] n.灵丹妙药；万能之计，治百病的药
3. tire of something v.厌烦;厌倦
4. A host of 大量;许多
5. de-men-tia [dɪˈmenʃə] n. [医]痴呆； 老年痴呆症
6. dia-betes ˌdaɪə-ˈbi:-ti:z] n.糖尿病
7. Texas [ˈtek-səs] n. 德克萨斯州（美国州名）
8. something or someone works *their magic* / or works *their charms* on a person 对…产生(神奇的影响);使…深受（魅力感染）

*Our spirits* rallied [as *the bitter-sweet alcohol* worked its magic]. 苦中带甜的酒发挥了奇效，我们的精神随之振奋起来。

Nevertheless, she is always optimistic乐观主义的 about *the possibilities* / and can work *her charm* on the disenchanted... 虽然如此，她总是乐观地抱持希望，并能深深地感染那些心灰意冷的人。

1. auto-phagy [ɔ:'tɑ-fədʒɪ] n. （细胞的）自我吞噬（作用）
2. de-rive [dɪ-ˈraɪv] v.

→you derive something such as pleasure or benefit from a person or from something 获得;取得;得到

Mr Ying is *one of those happy people* who derive pleasure from helping others. 英先生属于那种助人为乐的快活人。

→that something such as a word or feeling derives or is derived from something else （使）起源于;（使）来自

*Anna's strength* is derived from her parents and her sisters... 安娜的坚强源自于她的父母和姐姐们。

1. mecha-nism [ˈme-kə-nɪ-zəm] ①机械装置;机件。②方法;途径;程序;机制。③ (人为生存、对付困境的)机制，行为方式
2. surplus [ˈsɜ:pləs] adj. n. 过剩的；多余的. 公积金；(贸易)顺差； (预算)盈余
3. worn out adj. 磨穿；疲乏。疲惫不堪的;精疲力竭的。(观点等)过时的，陈腐的
4. mal-formed [ˌmæl-ˈfɔ:md] adj.（尤指先天性的）畸形的，变形的，残缺的
5. protein [ˈprəʊ-ti:n] n. adj.蛋白质（的）
6. cellular [ˈse-ljə-lə(r)] adj. 细胞的
7. compo-nent [kəm-ˈpəʊ-nənt] n.组成部分;成分
8. break up （使）分裂；（被）拆分；(使）破碎
9. scrap [skræp] n.碎片;小块;一丁点儿. 残羹剩饭;吃剩的东西. 废料；残余物
10. stal-wart [ˈstɔ:l-wət] adj. 强壮的；结实的；坚定的；可靠的。n.(尤指某个政党的)忠实拥护者，坚定分子
11. ge-netic [dʒə-ˈnetɪk] adj. 遗传的；基因的；起源的，起因的；演变的
12. genetically modified adj.转基因的（常使用缩略形式GM)
13. batch [bætʃ] 一批；一组；一群
14. rodent [ˈrəʊ-dnt] n. adj. [动]啮齿目动物
15. tweak [twi:k] v.①扭;扯;拧. ②稍稍改进;对…作微调

He tweaked *Guy's ear* [roughly]... 他粗暴地扯盖伊的耳朵。

1. auto-phago-some [ɔ:tə-'feɪ-ɡə-zəʊm] n.自［吞］噬体
2. structure n.结构;构造;组织。建筑物；体系。v.系统安排;精心组织;使形成体系

By structuring *the course* this way, we're forced to produce *something* （the companies think is valuable）. 这样制定发展规划后，我们不得不生产各公司认为有价值的东西。

1. form v.形成;(使)排列成;组成…形状

They formed a circle / and sang 'Auld Lang Syne'... 他们围成一个圆圈，唱起了《友谊地久天长》。

1. tread-mill [ˈtred-mɪl] ①枯燥(或繁重)的工作. ②踏车;跑步机
2. auto-phagy[ɔ:'tɑ-fədʒɪ] n. （细胞的）自我吞噬（作用）
3. engineer[ˌendʒɪˈnɪə(r)] v.①设计制造（车辆、桥梁、建筑物等）。②（巧妙或间接地）安排，筹划
4. take up ①开始从事;喜欢上。②开始处理;讨论如何处理。③开始从事，开始干(工作) 。④接受，答应(提议或挑战) 。⑤继续;把…接着进行下去。⑥占用，花费(时间、空间或精力)；占领，占据，占有(位置、阵地)

Angela used to be a model and has decided to take it up again. 安杰拉以前当过模特，现已决定重操旧业了

He will take up his post as the head of the civil courts at the end of next month. 他将在下个月底就任民事法庭庭长一职。

Dr Mahathir intends to take up the proposal with the prime minister... 马哈蒂尔博士打算和首相讨论这个提案。

96 per cent of the eligible employees took up the offer. 符合条件的雇员有 96% 接受了这个条件。

Gerry's wife Jo takes up the story... 格里的妻子乔接着往下讲。

1. manipulate [mə-ˈnɪ-pju-leɪt] v.摆布，操纵，控制(他人)
2. suggestive [səˈdʒes-tɪv] adj. ①使人想起…的;引起联想的;暗示的（Something that is suggestive of something else）。②性暗示的;性挑逗的

These headaches were most suggestive（adj.） of *raised blood pressure*. 这类头痛多是血压升高的征兆。

She winked使眼色 [suggestively]. 她抛了个媚眼。

1. euka-ryotic [u:-keə-ri':-ɒtɪk] adj. 真核状态的
2. organism [ˈɔ:gə-nɪ-zəm] n.生物；有机体；（尤指）微生物
3. adaptation [ˌæ-dæpˈteɪʃn] n.①（电影或电视的）改写本，改编本。②适应;作出调整

Most *living creatures* are capable of adaptation when compelled to do so. 大多数生物都能在迫于压力的情况下适应新环境。

1. there is *a scarcity* of something, n.缺乏;不足;稀少
2. you cope with a problem or task, v. (成功地)处理，应付，对付
3. lean [li:n] v.（身体）倾斜，倾侧

Eileen leaned across and opened the passenger door... 艾琳倾身把后座门打开。

→you lean on or against someone or something, （使）倚；（使）靠

→adj.①（壮健而）清瘦的。②（肉）瘦的。③（组织）精简的，精干的

1. adviser [daɪ-ˈvɜ:s] adj.①形形色色的;各式各样的。②不同的;迥异的
2. as diverse as 包括，例如

Before long, they may be used in applications as diverse as surgical implants and bulletproof vests. 不要多久, 它们可能被用于多种用途，从手术移植到防弹背心.

1. The onset of something n.（尤指不快之事的）开始，开端，肇始

With the onset of war, oil prices climbed past $30 a barrel. 战争一爆发，油价就攀过了每桶30美元。

1. condition n.①状况;状态。②疾病;健康问题

Doctors suspect he may have a heart condition. 医生怀疑他可能有心脏病。

1. Huntington's diseases：缩写 HD。亨廷顿病，又称大舞蹈病，或亨廷顿舞蹈症(Huntington's chorea [kəˈriə] 舞蹈症)。

主要病因是患者第四号染色体上的Huntington基因发生变异，产生了变异的蛋白质，该蛋白质在细胞内逐渐聚集在一起，形成大的分子团，在脑中积聚，影响神经细胞的功能。一般患者在中年发病，表现为舞蹈样动作，随着病情进展逐渐丧失说话、行动、思考和吞咽的能力，病情大约会持续发展10年到20年，并最终导致患者死亡。

1. intriguing [ɪnˈtri:gɪŋ] adj.有趣的;引人入胜的;奇怪的

*This intriguing book* is both thoughtful and informative. 这本引人入胜的书既有思想性又富知识性。

1. life-span [ˈlaɪf-spæn] n. ①（人、动植物的）寿命，预期生命期限。②（产品等的）预期使用期限；（组织、想法等的）预期存在期限
2. dispose v.处理，处置；安排

dispose of ①丢掉;清除;处理。②办妥;处理好;解决。③除掉;杀掉

Engine oil cannot be disposed of down drains. 发动机油不能被清理到下水道中。

You did us a great favour by disposing of that problem... 你解决了那个问题，可算是帮了我们一个大忙。

He alleged that they had hired an assassin to dispose of him. 他宣称他们已雇了刺客来除掉他。

1. mito-chon-dria [ˌmaɪ-təʊ-'kɒn-drɪə] n.线粒体( mitochondrion的名词复数 )
2. power pack 动力单元，电源组
3. radical [ˈrædɪ-kl] adj.①重大的;根本的;基本的;彻底的。②激进的；激进派的。

The country needs a period of calm without more surges汹涌波涛 of radical change... 国家需要一段时间的稳定，其间不要再有重大的变革。

1. *The driving force or idea* behind something，adj. 推动的;推进的;强有力的
2. get rid of 除掉，去掉；涤荡；革除；摈除
3. wonky [ˈwɒŋ-ki] adj.不直的；不平的；歪斜的

The wheels keep going wonky. 轮子总是左右摇晃。

1. subsist v.勉强糊口;勉强度日

subsist on 依靠…生活

1. vigorous [ˈvɪgə-rəs] adj.①（体育活动）剧烈的，强度大的，强劲的。②活跃的;积极的;热烈的。③精力旺盛的;充满活力的

He shook his head vigorously... 他用力地摇头。

They will take *vigorous action* to recover the debts. 他们将积极讨回债款。

1. long-winded adj.长篇累牍的；冗长的；啰嗦的

Misery index 贫困指数

Low *social status* is bad for your health. Biologists are starting to understand why

[ONCE upon a time]{*the overstressed（adj.） executive* bellowing *orders* [into a telephone], cancelling meetings, staying late [at the office] / and dying of *a heart attack*} was *a stereotype* of modernity.

That was before *the Whitehall studies*, *a series of* investigations （of British *civil servants*） begun in the 1960s. *These studies* found that *the truth* is precisely the opposite.[[1]](#footnote-2)

Those （at the top of *the pecking order[[2]](#footnote-3)*） actually have *the least stressful（adj.）* / and *most healthy（adj.）* lives. Cardiac arrest—and, indeed, *early death* from any cause—is *the prerogative* of underlings.

Such results have since been confirmed many times, both in *human societies* and in other *primate species* （with strong *social hierarchies*）.

But whereas[[3]](#footnote-4) the pattern is well-understood, *the biological mechanisms* （underlying（adj.） it） are not. *A study* just published [in *the Proceedings* of *the National Academy* of Sciences], however, sheds some light on the matter.

In it, a group of researchers （led by *Jenny Tung* and *Yoav Gilad* （at *the University* of Chicago）） looked at *the effects* of status （on *rhesus macaque*s）. Experience has shown that *these monkeys* display the simian equivalent of the Whitehall studies' findings.

*The high risk* of disease （among those （at the bottom of the heap） （in both cases） suggests that *biochemical responses* （to low status） affect a creature's *immune system*.

Those responses must, in turn, depend on changes （in the way *the creatures' genes* are expressed）.

{To investigate this phenomenon} means manipulating *social hierarchies*, but that would be hard / if it were done to *human beings*.

You can, however, do it to monkeys, and *the researchers* did.

·*Unhappy minds* in *unhealthy bodies*

*Dr Tung* and *Dr Gilad* took 49 middle-ranking *female macaques* / and split them into groups of four or five. *The researchers* were able to control where [in a group] *an individual* ranked by *the order* （in which it was introduced into its group）.

*The hierarchies* thus established, the team conducted tests on cells （in the monkeys' blood）, in *an attempt* to determine the effect （of a macaque's rank） on her biochemistry） and, in particular, on how rank influences *the activity* of various genes.

·The answer is, a lot.

Dr Tung and Dr Gilad looked at the expression [in each animal （of 6,097 genes）]. They were searching for correlations between *social rank* and *gene activity*, and [in 987 genes] they found one.

Some genes were more active（adj.） in *high-ranking individuals*; others were more active in low-ranking ones. The relationship was robust(adj.) enough to work the other way （round）, too.

条件状Given *a blood sample* and no other information, it was possible to predict *an individual's status* within her group [with *an accuracy* of 80%].

The next question was what *all these genes* actually do. Sure enough the answer, for *a* substantial *fraction of* them, was that they regulate *aspects* of *the immune system*.

In particular, *low-status individuals* showed *high levels* of activity [in genes] associated with *the production* of various *immune-related cells* / and *chemical signalling* factors, as well as those to do with inflammation.

Although *the researchers* did not explicitly examine *the health* of their simian charges, *chronic, generalised inflammation* is a risk factor, in people, for *a long list of* ailments ranging from *heart trouble* to *Alzheimer's disease*.

Finally, the team investigated *the mechanisms* behind these differences in *gene expression*.

In keeping with[[4]](#footnote-5) previous work, they found that *high-and low-rank individuals* showed *different levels* of responsiveness [对于to *a class of* hormones （called glucocorticoids）], which regulate *immune-system activity* / and *response （to stress）*.

They also found changes （in the mix of cells （within the animals' *immune system* itself））.

But {what is new, and intriguing（adj.）}, is that they discovered, [for the first time], evidence （that {a phenomenon （called *epigenetic change*）} is at work）.

Epigenetics ——currently one of *molecular biology*'s hottest topics—— is *a process* （by which *genes* are activated or deactivated 条件状by *the presence or absence* （of *chemical structures* （called methyl and acetyl groups）））.[[5]](#footnote-6)

Dr Tung and Dr Gilad found that *methylation patterns* were systematically different [in high- and low-ranking animals].

Crucially, these changes are generally passed on to[[6]](#footnote-7) *the daughter cells* produced [when a cell divides], and are thus perpetuated throughout *an animal's life*.

[To the extent] that *epigenetic marking* is involved（adj.） in creating social status, then, status may be being maintained [借由by *the animal's cells* 时间状as they replicate].

·Destiny's child?

Those （who believe in progress） will, however, be pleased（adj.） to know {that epigenetics is not necessarily destiny（n.）}.

*Methyl groups* may help maintain *the status quo[[7]](#footnote-8)*, but [if that *status quo* is interrupted by outside events] they can be wiped away / and a new lot put in place[[8]](#footnote-9).

Dr Tung and Dr Gilad discovered this 原因状because *a few of* their monkeys did change status within their groups.

When that happened, changes （in *gene expression*） appropriate to the new status quickly followed.

Those （who do break free from their lowly station）, then, may begin to reap the health benefits [almost immediately].

As with[[9]](#footnote-10) any animal study, this one cannot simply be mapped straight onto humans. But it does provide pointers （that *researchers （who work on people）* can use）.

In particular, the experiment ensured {that *social rank* was the only factor （being changed）}, providing strong evidence （that *the chain* of causality runs from low social status, through *a disrupted immune system* to worse health, and not the other way around）.

The best medicine, then[[10]](#footnote-11), is promotion. Prosper, and live long.

社会地位与健康。

贫困指数。

社会地位低对身体不好，生物学家开始理解此中的奥秘。

曾今，人们对现代化的一个根深蒂固的印象是，领导们在巨大压力的折磨之下，对着电话狂吼，下达命令，取消会议，待在办公室到很晚，最后死于心脏病。可是，自1960年代开始的英国白厅对英国政治家们展开的一系列调查之后，这种印象开始改变，因为调查发现事实却完全不是那么回事。实际上处于社会高层的人们承受的压力最小，生活最健康。心跳骤停——而且，确实是，不管是出于什么原因的早死——那都是做下属的才有的事。

在人类社会，还有等级严格的其他的灵长类物种中，都已多次验证这种结果的正确性。但是，虽然这种模式很容易理解，潜在的生物学机制却并不这么认为。杂志《国家科学院》最新出版的专题里，对此现象有相关阐述。

专题里，詹妮东和要吉拉德领导的研究小组在芝加哥大学，研究地位之于恒河猴的影响。实验经过表明，这些猴子所表现出来的是英国白厅研究发现的猴子版本。社会地位低的患病风险高，这既适用于人类界也同样适用于猴子。这暗示了社会地位低的物种的生物化学反应影响其免疫系统。反过来，这种生物化学反应又取决于物种生物基因的变化方式。若要调查这种现象，那就意味着需要控制社会等级，在人类身上进行，很困难（而且很可能不道德）。但是，你可以在猴子身上做实验，而且研究人员也是这么做的。

不健康的身体，不快乐的心情。

博士东和吉拉德，用49个中等地位等级的女性猴子做实验（用女性猴子的原因是，前期大量动物地位等级的准备工作都是在女性猴子身上做的），并把他们分为四到五组。根据猴子们加入研究群体的时间顺序，研究人员给她们的地位等级编号（新来的都是要听前辈的，这是潜规则）。等级于是得以建立。研究团队采集猴子血液做细胞研究，试图搞清楚恒河猴的地位等级对其生物化学的影响，特别是地位等级是如何对各种基因活动起作用的。

研究结果有很多。每个动物有6097个基因，博士东和吉拉德观察每个动物的基因（一个猴子基因组总数的30%??——这也适用于人类），寻找社会等级与基因活动之间的相互关系。在987个基因中，他们找到了一个。某些基因在等级高的个体中更活跃，而其他的基因则活跃于等级低的个体中。这一结果很牢靠，倒过来看也成立。只提供血液样本而没有其他相关信息，就可以预测个体在群体里的地位等级，且精确度达到80%。

下一个问题，所有这些基因，真正起的是什么作用。答案很显然，对大部分基因而言，它们起着调节着免疫系统的作用。这非常明显地体现在，社会地位低的个体，产生各种与免疫相关的细胞和化学信号基因的活动更为明显，还有那些有关于炎症的基因（一种普通的免疫反应，包括细胞组织的膨胀，还有增加免疫细胞在疫区免疫细胞活动）。虽然研究人员没有仔细分析参与实验的猴子们的健康状况，但是慢性的、全身性的炎症对猴子们来说是危险因素，人类的部分，就是从心脏病到老年痴呆症等一大长系列疾病。

最后，研究小组用基因表达调查造成这些不同的机理原因。与之前工作结果一致，他们发现地位高和地位低的个体，对被称为糖皮质激素的一组基因，表现出的反应级别不一样。糖皮质激素控制免疫系统活动和对压力的反应。同时他们发现，在动物免疫系统自身，混合细胞有发生改变。但是最为新奇的是，他们头一次发现了后天改变在起作用的证据。

表现遗传学——目前分子生物学最热的话题之一——是这样一个过程，基因的激活或是失效取决于被称为甲基和乙酰基的化学结构的存在或是消失。博士东和吉拉德发现甲基模式在地位高级和地位低级的动物之间是不一样的，且这种不一样是系统性的不一样。至关重要的一点是，这些变化一般在细胞分裂的同时传递给子细胞，因此这些变化将贯穿动物的一生。从此意义上讲，后天标记参与社会地位的形成，社会地位的维持靠动物细胞的复制。

命运的产物？

但是，相信事物是发展变化的人们会很高兴，因为表现遗传学并不是上天注定，难以改变的。甲基或许可以帮助维持现状，但是如果外来事件打断了它，那么甲基将被移除，新的一批上任。

博士东和吉拉德能够发现了这一点，是因为，参与实验的几个猴子确实改变了她们在群体中的地位等级。地位等级一旦发生改变，与之相应的基因表达随即改变。那些确实改变了它们之前卑贱地位的猴子们，身体状况几乎都立刻获得改善。

不管以什么动物为研究对象，结果都不能直接简单地运用于人类，这个也不例外。但它确实给研究人类的学者们提供了一些建议。该实验的独特之处是，它确保了实验中社会等级是唯一发生改变的因素。它为因果关系链的正确模式提供了一个强有力的证据，正确模式是低等的社会等级通过被破坏了的免疫系统损害健康。而不是反过来的顺序。晋升是疗效最好的药物。因为成功，所以活得长久。

Academy of Sciences 科学院

accu-racy [ˈækjə-rəsi] n.

ace-tyl ['æsɪ-tɪl] n. 乙酰基，醋酸基

ail-ment [ˈeɪl-mənt] n.

Al-zhei-mer's disease [ˈæl-tshaɪ-məz dɪzi:z] n. 阿尔茨海默病；早老性痴呆病

appro-priate [əˈprəʊ-priət] adj. v.

as-pect [ˈæs-pekt] n.

bellow [ˈbeləʊ] v. n.

bio-chemical [ˌbaɪ-əʊ-'kemɪ-kl] adj.

bio-chemi-stry [ˌbaɪ-əʊ-ˈkemɪ-stri] n.

cancel-ling ['kænsə-lɪŋ] n. v.

Car-diac ar-rest [ˈkɑ:di:ˌæk ə-ˈrest] N-VAR心脏停搏

cau-sa-lity [kɔ:-ˈzæ-ləti] n.

chro-nic [ˈkrɒ-nɪk] adj.

corre-lation [ˌkɒrə-ˈleɪ-ʃn] n.

cru-cially [ˈkru:-ʃɪə-lɪ] adv.

daughter cell [ˈdɔ:tə sel]子细胞

des-tiny [ˈdes-təni] n.

epi-ge-netic [epɪ-dʒɪ-'ne-tɪk] adj.

Epigenetics [ˌepɪ-dʒ-'ne-tɪks] n 表观遗传学； 表观遗传； 实验胚胎学 （表观遗传（epigenetics）是指DNA序列不发生变化，但基因表达却发生了可遗传的改变。这种改变是细胞内除了遗传信息以外的其他可遗传物质发生的改变，且这种改变在发育和细胞增殖过程中能稳定传递。）

equi-va-lent [ɪˈkwɪ-və-lənt] adj. n.

exe-cutive [ɪgˈze-kjə-tɪv] n. adj.

expli-citly [ɪk-'splɪ-sɪ-tlɪ] adv.

ge-nera-lised ['dʒe-nərə-laɪzd] adj.

Gila [ˈhi:lə]

glu-co-corti-coids [ˌglu:kəʊ'kɔ:tɪˌkɔɪd] 糖皮质激素类, 类固醇

hie-rar-chy [ˈhaɪə-rɑ:ki] n.

hor-mones ['hɔ:məʊn] n.

im-mune [ɪ-ˈmju:n] adj.

immune system 免疫系统

in-flam-mation [ˌɪn-flə-ˈmeɪ-ʃn] n.

in-tri-guing [ɪnˈtri:gɪŋ] adj. v.

ma-nipu-late [məˈnɪ-pju-leɪt] vt.

mecha-nism [ˈmekə-nɪ-zəm] n.

me-thyl ['me-θɪl] n. 甲基，木精。（甲基（methyl group），甲烷分子中去掉一个氢原子后，剩下的电中性的一价基团。由碳和氢元素组成。基团（radical group）：是指有机物失去一个原子或一个原子团后，剩余的部分。）

me-thy-lation [meθɪ-'leɪ-ʃn] 甲基化作用

moder-nity [məˈdɜ:-nəti] n.

mo-lecu-lar biology [mə-ˈlekjə-lə bai-ˈɔlə-dʒi] n. 分子生物学

oppo-site [ˈɒpə-zɪt] adj. prep. adv. n.

over-stress ['əʊvə-'stres] n.

per-petu-ate [pə-ˈpe-tʃu-eɪt] vt. adj.

phe-nome-non [fə-ˈnɒmɪ-nən]

pre-roga-tive [prɪ-ˈrɒgə-tɪv] n. adj.

pre-sence [ˈpre-zns] n.

pri-mate [ˈpraɪ-meɪt] n. adj.

pros-per [ˈprɒs-pə(r)] v.

quo [k'wəʊ]

reap [ri:p] v.

regu-late [ˈre-gju-leɪt] vt.

re-pli-cate [ˈre-plɪ-keɪt] vt. adj. n.

respon-sive-ness [rɪ'spɒn-sɪv-nəs] n.

rhe-sus ma-caque [ˈri:-səs mə-ˈkæk] 恒河猴

ro-bust [rəʊ-ˈbʌst] adj.

sig-nal-ling ['sɪg-nə-lɪŋ] n. v.

si-mian [ˈsɪ-miən] adj. n.

spe-cies [ˈspi:ʃi:z] n.

ste-reo-type [ˈste-riə-taɪp] n. vt.

sub-stan-tial [səb-ˈstæn-ʃl] adj. n.

syste-ma-tical-ly [ˌsɪstə-'mæ-tɪk-lɪ] adv.

Tung [tʊŋ]

under-ling [ˈʌndə-lɪŋ] n.

whe-reas [ˌweə-rˈæz] conj. n.

摇摇晃晃的家具让人在情绪上追求稳定

Psychology （n.心理学，心理特点）

*Tall, dark and stable Wobbly furniture* leads to a desire （for emotional stability）

CLEARLY, a person’s decisions are determined by circumstances. Just how closely they are determined, however, has only recently become apparent（adj.）.

Experiments （conducted [over the past few years]） have revealed ①that 条件状{giving someone *an icy drink* [at a party]} 谓leads him to believe he is getting the cold shoulder[[11]](#footnote-12) [from fellow guests], ②that handing over *a warm drink* gives people *a sense* of warmth（n.） （from others）, and ——most astonishingly—— ③that putting *potential voters* in chairs （which lean slightly to *the left*） causes them to become more agreeable（adj.） towards policies （associated（adj.） with the left of *the political spectrum[[12]](#footnote-13)*）.

{*The latest* of these studies} also looks at *the effect* of furniture. It suggests that something （as trivial（adj.） as *the stability* of chairs and tables） has an effect （on *perceptions and desires*）.

The study was conducted by *David Kille*, *Amanda Forest* and *Joanne Wood* （at *the University* of Waterloo, in Canada）, and will be published soon in *Psychological Science*.

Mr Kille and his collaborators asked half of their volunteers to sit in *a slightly wobbly chair* （next to *a slightly wobbly table*） [while engaged in the task assigned]. The others were asked to sit in chairs （next to tables （that looked physically identical（adj.）, but were not wobbly（adj.）））.

Once[[13]](#footnote-14) in their chairs, participants were asked to judge *the stability* of the relationships （of four *celebrity couples*）:

*Barack* and *Michelle Obama*, *David* and *Victoria Beckham*, *Jay-Z* and *Beyoncé*, and *Johnny Depp* and *Vanessa Paradis*.

They did this 方式状by rating how likely they thought it was, on *a scale* of one to seven, {that a couple would break up [in the next five years]}.

*A score* of one meant extremely unlikely（adj.） to dissolve.

*A score* of seven meant extremely likely to dissolve.

After they had done this, they were asked to rate their preferences for *various traits* （in a potential *romantic partner*）.

Traits （*on offer*[[14]](#footnote-15)） included ①some （which *a pilot study* indicated people associate with a sense of *psychological stability*）, ②some （that are associated with *psychological instability*） / and ③some （with no *real relevance* （to *instability or stability*））.

Participants rated *the various traits* on another *one-to-seven scale*, with one indicating *not at all* desirable / and seven meaning *extremely desirable*.

The results reveal that *just as* cold drinks lead to *perceptions* （of social conditions being cold）, {tinkering with[[15]](#footnote-16) feelings of *physical stability*} leads to *perceptions（n.）* of social instability.

Participants （who sat in *wobbly chairs* at *wobbly tables*） gave *the celebrity couples* 双宾*an average stability score* of 3.2 [比较状while those （whose furniture did not wobble） gave them 2.5.

What was particularly intriguing, though, was that those （sitting at *wonky furniture*） not only saw instability [地点状in *the relationships* of others] but also said that they valued stability（n.） [地点状in *their own relationships* more highly].

They gave stability-promoting[[16]](#footnote-17) traits （in potential *romantic partners*） *an average desirability score* of 5.0, whereas those （whose *tables and chairs* were stable（adj.）） gave *these same traits* a score of 4.5.

The difference is not huge, but it is statistically significant.

Even *a small amount of* environmental wobbliness seems to promote a desire / for *an emotional（adj.） rock[[17]](#footnote-18)* to cling to.

摇摇晃晃的家具让人在情绪上追求稳定

显然，任何人在做决策的时候都受决策时的周遭环境所影响。

但具体来说会造成多大的影响直到最近才有了一个较为清晰的解释。

在过去几年进行的一系列实验中，有一个实验发现在聚会中，给客人提供冷饮会让他有不受旁边人待见的感觉倾向，相反，提供温水等有温度的饮料会让他们感觉到周围人的温暖。

最让人惊奇的是，在另外一个关于潜在选民的实验中，让一个没有立场的潜在选民，坐在椅子上并微微向左边靠，他会更加认同与左派相似的政治立场。

这一系列实验最近将他们的目标转向了家具，研究家具对人的影响。

他们假设许多不被人注意到的细节例如桌椅的稳定性会影响到人们对于其他事物的看法和愿望。

这份研究是由David Kille，Amanda Forest以及滑铁卢大学的Joanne Wood一同完成的，即将在《心理科学》杂志上发表。

在实验中，他们选取了47个处于单身的大学本科生，将他们分为两组，一半学生在实验中坐在一张会摇晃的桌子旁一张会摇的椅子上，

另外一半则是坐在外表相似却非常稳的椅子上。

研究人员给两组学生展示四组夫妇的照片：

奥巴马和米歇尔，维多利亚和贝克汉姆，Jay-Z和碧昂斯，强尼戴普和vanessa paradis，

然后让学生们给四对夫妇的情感稳定性打分—从一分到七分，他们未来五年离婚/分手的几率，

一分代表几乎不可能分开，

七分代表十分可能分手。

接下来，调查者让两组学生分别对一系列理想配偶的特征进行打分—量表上给出一系列特征，

依旧是一分到七分，一分代表一点也不喜欢这样子的七分代表大爱。量表上设置的特征，有些与追求稳定相关联，有些与追求不稳定相关联，有一些是随机挑选的特质，三类特征交错放置。

其中关于追求稳定的一些特质包括是否值得信赖，是否可靠。而追求不稳定的特质包括是否自发性强，或是具有探险精神。

调查结果就像之前那个聚会不要请人喝冷饮的调查一样，在身体感受到不稳定状态的时候会使得心理上更加倾向于感受到社交中的不稳定因子。

摇椅上的人给那四对夫妇打得分数是3.2，比另外一组高出0.7，越高分数代表越可能分开。

最有趣的还不是这里，最有趣的是这些坐在摇晃家具上的人不仅更倾向于看见他人关系中不稳定的因素，也倾向于更加重视追求自己与他人关系中的稳定因子。

他们在后一个实验中对理想配偶的稳定特质重视程度的打分平均是5.0，比另外一组高出0.5，

虽然数字上的差异不是很大，但是就数据分析来说，已经很能说明问题了。

即使只是环境中存在一点点的不稳定因素似乎都会让人们产生赶快抓住一根感情稻草的冲动。

astonish-ing [əˈs-tɒnɪ-ʃɪŋ] adj. v.

Ba-rack [bɑr-'ræk] n. 人名

ce-leb-rity [sə-ˈleb-rəti]

col-labo-rator [kə-ˈlæbə-reɪ-tə(r)] n.

desi-ra-bility [dɪ-ˌzaɪə-rə-'bɪlə-tɪ] n.

desi-rable [dɪ-ˈzaɪə-rəbl] adj. n.

dis-solve [dɪ-ˈzɒlv] v.

envi-ron-men-tal [ɪnˌ-vaɪ-rən-ˈmen-tl] adj.

in-sta-bility [ˌɪn-stə-ˈbɪlə-ti] n.

in-tri-guing [ɪn-ˈtri:-gɪŋ] adj. v.

Mi-chelle [mi:'ʃel] n. 女子名（蜜雪儿）

par-ti-ci-pant [pɑ:ˈtɪ-sɪ-pənt] n. adj.

par-ticu-larly [pə-ˈti-kju-ləli] adv.

pilot study [ˈpai-lət ˈstʌdi] n. 初步研究

policy [ˈpɒlə-si] n.

po-ten-tial [pə-ˈten-ʃl] adj. n.

pro-mote [prə-ˈməʊt] v.

Psy-cho-logical [ˌsaɪkə-ˈlɒdʒɪ-kl] adj.

rele-vance ['relə-vəns] n.

spec-trum [ˈspek-trəm] n.

sta-tis-tical-ly [stə-'tɪs-tɪk-lɪ] adv.

statistically significant [stə-ˈtɪs-tɪkli sɪɡˈnɪfɪkənt] 统计上显著的

tin-ke-ring ['tɪŋ-kə-rɪŋ] v.

trait [treɪt] n.

tri-vial [ˈtrɪ-viəl] adj.

Va-nes-sa [və-'nesə] 人名（温妮莎）

Vic-to-ria [vik-ˈtɔ:-riə] 女子名（维多利亚）

Water-loo [ˌwɔ:tə-ˈlu:] n.

wob-bli-ness ['wɔb-li] n.

wobbly [ˈwɒ-bli] adj. n.

Snot fair! 太不公平啦！

Exactly when is something perceived as *not fair*? 究竟在什么情况下，人们会觉得不公平？

AS *THE bankster phenomenon* has so eloquently illustrated, *Homo sapiens* is exquisitely sensitive（adj.） to injustice.

Many people grudgingly tolerated *the astronomical incomes* of financial traders, and even *the cosmological ones* of *banks' chief executives*, when they thought {those salaries were earned by honest labour}.

Now, so many examples （to the contrary） have emerged that toleration has vanished.

Surprisingly, however, 主*the psychological underpinnings* of *a sense* of injustice ——插入in particular, what triggers willingness (to punish an offender), even at a cost to the punisher—— 谓have not been well established.

But *a recent experiment* （by *Nichola Raihani* of University College, London, and *Katherine McAuliffe* of Harvard）, just published in *Biology Letters*, attempts to disentangle the matter.

Dr Raihani and Ms McAuliffe tested two competing hypotheses.

One is {that *the desire* （to punish） is 表simple（adj.） *revenge[[18]](#footnote-19)* (for an offence)}.

The other is {that it is related to the offence's consequences ——specifically, *whether or not* the offender is 表left *better off[[19]](#footnote-20)* than the victim}.

Until recently, the temptation would have been to advertise for *undergraduate volunteers* for such a project.

Instead, Dr Raihani and Ms McAuliffe decided to follow a new fashion in psychology / and recruit their human *guinea pigs[[20]](#footnote-21)* through a system （called *Mechanical Turk*）.

This arrangement, run by Amazon, a large internet firm, pays people （registered with it） small sums of money （to do jobs for others）.

That allowed the two researchers not only to gather many more volunteers than would have been possible（adj.） from the average *student body[[21]](#footnote-22)*, but also to spread *the profile* of those volunteers beyond *the halls* of academe / and beyond *the age* of 21.

Dr Raihani and Ms McAuliffe asked their Turkers to play a game.

In it, the volunteers were paired and given small sums of money.

*One member* of a pair could then take a predefined sum from the other, or not, as he chose.

After that / the other could, at a certain cost to himself, impoverish his opponent *to a greater degree[[22]](#footnote-23)*.

*The first player* might receive ten cents, 30 cents or 70 cents. *The second player* always received 70 cents.

*The first player* was then allowed to take 20 cents of the second player's money. Finally, *the second player* could reduce the first player's total sum by 30 cents, but at a cost of ten cents to himself ——in other words, he lost money too [by doing so].

*The crucial point* of the game is {that [in all three cases] *the second player* suffers the same absolute loss / if *the first* chooses to take money from him}. The offence, in other words, is identical(adj.).

But [in *the first version* of the game] he remains ahead（adv.） / if he does not retaliate (50 cents v 30 cents), [in the second] he comes out[[23]](#footnote-24) equal (50 cents v 50 cents), and [in the third] he ends up behind (50 cents v 90 cents).

The upshot was {that [in the first two cases] about 15% of second players chose to retaliate / if they had money taken}.

This was *more or less* the same as *the number* （in all three versions of the game） （who retaliated / *even though* they did not have money taken）(课括a course of action allowed by the rules).

In the third version, though, more than 40% of second players retaliated / when money was taken from them ——*even though* the outcome was 表still that *the first player* ended up ahead, with *60 cents* to the second player's *40 cents*.

On the face of things[[24]](#footnote-25), this result suggests {that{ 主从what really gets people's goat[[25]](#footnote-26)} is not so much having money taken, but having it taken 方式状in a way that makes the taker better off than the victim}.

That will clearly bear further investigation, for example [by looking at the case （where *the first player* begins the game better off than the second）].

It is intriguing（adj.）, though, that even such trivial sums of money can provoke thoughts of revenge.

In light of this, the fate (awaiting those *astronomically paid* bankers) could be a particularly nasty one.

太不公平啦！

究竟在什么情况下人们会觉得不公平？

强盗银行家的现象已经有力地证明，人类对于不公平是敏感至极的。

过去，许多人对于操盘手高到天上去的收入，甚至是银行高管天文数字一般的薪酬，虽愠愠不平，但尚能忍耐，他们曾以为这些收入是靠诚实劳动赚来的。

但如今，随着大量反例的出现，公众的忍耐已经不复存在。

然而让人惊讶的是，心理学上对于不公平感的成因尚未能做出很好的解释，尤其是为何人们不惜付出代价也要惩罚侵犯者。

但是，英国伦敦大学学院的尼古拉·雷汉尼和哈佛大学的凯瑟琳·麦考利夫最近进行的一项实验尝试对这个问题抽丝剥缕，这一实验的结果发表在了最近的《生物学快报》上。

雷汉尼博士和麦考利夫女士对两种对立的猜想进行了验证。

第一种猜想认为，惩罚侵犯者的欲望只是一种报复心理。

另一种猜想则认为这与侵犯的结果有关—具体来说，即侵犯者的境况是否比受害者更好。

一直到最近，像这样的项目往往会通过广告吸引大学生志愿者。

但是雷汉尼博士和麦考利夫女士决定采取心理学界新近流行的一种方法，借由一个叫做机械土耳其的系统招收他们实验的小白鼠。

这一系统由网络巨头亚马逊公司组织，注册用户为别人工作后可以领到小额的酬劳。

通过这个系统，两位研究者不仅找到了比普通学生群体更多的志愿者，还得以将志愿者的范围扩大到了学术界以外和21岁以上的人群。

雷汉尼博士和麦考利夫女士请参与实验的特客玩了一个游戏。

在游戏中，志愿者以两人一组一一配对，并各自获得一小笔钱。

组里的一名志愿者可以选择是否从另一名组员那里拿走预定数量的钱。

之后，另一位组员在自己付出一定代价的前提下，可以大量减少对方的财产。

每一组的游戏者甲最开始可能会收到10美分、30美分或是70美分作为起始财产。

而游戏者乙则总会收到70美分。

然后甲被允许先从乙处取走20美分。

最后乙可以选择使甲的财产减少30美分，但是作为代价他自己也必须拿出10美分—换句话说，这么做乙自己蒙受了损失。

这个游戏最关键的一点在于，无论甲的起始财产是多少，只要甲选择拿走乙的钱，乙都要蒙受完完全全的损失。

也就是说，不论哪种情况，乙所受到的侵犯总是一样的。

但在第一种情况中，如果乙不采取反击，他还能保持领先，第二种情况下甲乙平局，而第三种情况中，乙则会以落后告败。

游戏的结果显示，在前两种情况中，只要钱被拿走，15%扮演乙的志愿者会选择反击。

而综合三种情况来看，乙在钱没有被拿走的前提下依然选择向对方进行反击的现象也大概占15%。

但在第三种情况中，一旦钱被拿走，超过40%扮演乙的志愿者会采取反击—即便甲仍然会以60美分比40美分的优势取得游戏的胜利。

乍一看，这样的结果意味着真正让人感到愤恨的不是自己的钱被拿走，而是拿走钱的人在拿走钱后财产比受害者多。

显然这个结论需要更多的调查加以证明，比如假如从一开始甲的钱就比乙多，结果会如何。

有意思的是，就是这么不起眼的几十美分也能激发人的报复心理。

从这一点看来，等待着那些拿着超高薪待遇的银行家们的命运颇为险恶。

per-ceive [pə-ˈsi:v] v.

elo-quently ['elə-kwən-tlɪ] adv.

Homo sa-piens [ˌhɒ-məʊ ˈsæ-pienz] n. 智人（现代人的学名）

ex-qui-si-tely [ekˈs-kwɪ-zɪ-tlɪ] adv.

gru-dging [ˈgrʌ-dʒɪŋ] adj.

as-tro-nomi-cal [ˌæs-trə-ˈnɒmɪ-kl] adj.

cos-mo-logical [ˌkɒz-mə-'lɒ-dʒɪ-kl] adj.

exe-cutive [ɪg-ˈze-kjə-tɪv] n. adj.

Scottish(adj.) independence(n.)

UK RIP? 大英联合帝国要完了？

{Ditching the union} would be a mistake for Scotland / and a tragedy for the country (it leaves behind)

SCHOOLCHILDREN once imagined their place in the world, with its complex networks and allegiances, by writing elaborate postal addresses. British youngsters began with their street and town.

They understood {that {主the UK, and all its collective trials and achievements——the industrial revolution, the Empire, victory(n.) (over the Nazis), the welfare state}——谓were as much *a part* of their patrimony as *the* *Scottish Highlands* or *English cricket*}.

They knew, instinctively, {that *these concentric rings* of identity were complementary（adj.）, not opposed（adj.）}.

At least, they used to. After the referendum on Scottish independence on September 18th, one of those layers——the UK——may cease to exist, at least in the form[[26]](#footnote-27) （recognisable） since *the Act of Union[[27]](#footnote-28)* three centuries ago.

As the vote nears, Scotland's nationalists have caught up with the unionist No camp in the *opinion polls[[28]](#footnote-29)*, and even edged ahead.

*More and more* Scots are deciding that *the UK*, (which their soldiers, statesmen, philosophers and businessmen have done so much to build and ornament), does not cradle their Scottishness but smothers it.

This great *multinational state* could be undone *in a single day[[29]](#footnote-30)*, by a poll in which *just 7% of its citizens* will participate. That outcome, once unthinkable, would be 表bad for Scotland / and 表tragic(adj.) for what remained of[[30]](#footnote-31) the UK.

The damage (a split would do) 苏格兰独立的危害

*The rump* of Britain would be diminished 地点状in every *international forum*: why should anyone heed a country （whose own people shun it）? Since Britain [broadly] stands for free trade / and *the maintenance* of international order, this would be 表bad for the world.

Its status （as a nuclear power） would be 表doubtful（adj.）: the country's nuclear submarines are based in a Scottish loch / and could not be moved quickly.

Britain would also be 表more likely(adj.) to leave *the European Union*, 原因状since Scots are better disposed to Europe than are the English (and are 表less likely（adj.） to vote for the Conservatives, who are promising a Euro-referendum [if they win next year's *general election*]).{*The prospect* of a British (exit from the EU)} would scare investors much more than a possible (Scottish exit from Britain) .

*The people* of Scotland alone will decide *the future* of Britain, and they are not obliged to worry about {what becomes of[[31]](#footnote-32) the state (they would leave)}. But——perhaps not surprisingly, given *the endurance and success* of the union, 表imperiled(adj.) though it 系is——Scots' own interests, and *the rest* of Britain's, coincide.

At *the heart* (of[[32]](#footnote-33) the nationalist campaign) is *the claim* (that Scotland would be 表a more prosperous and more equal country / if it went solo). It is rich in oil / and inherently decent, say *the nationalists*, but impoverished by a government (in Westminster) （that has also imposed callous policies）.

They blame successive British governments for almost every ill （that has befallen Scotland）, from *the decline* of manufacturing industry to ill-health to *the high price* of sending parcels in the Highlands.

Alex Salmond, Scotland's nationalist leader, is broad in his recrimination: Labour and the Tories are 表of a piece[[33]](#footnote-34), he suggests, in their disregard (for Scotland).

But Scotland's relative *economic decline* is the result not of southern neglect but of *the shift* of manufacturing and shipping to Asia. 即便/纵然If[[34]](#footnote-35) Westminster has not reversed all *the deleterious effects* of globalisation and technology, that is because {*to do so* is impossible}.

The nationalists know this, which is why, sotto voce[[35]](#footnote-36), they would continue many of Westminster's policies. *Instead* they make much of minor adjustments, *such as* abolishing *the “bedroom tax”*, (a recent *measure* (designed to nudge people out of too-large social housing). To break up a country [over[[36]](#footnote-37) *such small, recent annoyances*] would be nuts.

*The nationalists' economics* are also flawed(adj.). Scotland would not, in fact, be richer alone.

The taxes (that would flow to it *from the North Sea*) would roughly compensate for *the extra cost* of its lavish state, （which would no longer be funded by Westminster (课括[last year] spending was some *1,300 per person* / higher in Scotland than elsewhere in Britain)）.

But *oil revenues* are erratic（adj.）. They would have earned Scotland *11.5 billion* in 2008-09 / but only *5.5 billion* in 2012-13. If *an independent state* were to smooth *these fluctuations* 方式状by setting up *an oil fund*, it would have less cash to spend now.

In any case, the oil is gradually running out. *In order to* maintain *state* *spending* [after it is gone], taxes would have to rise. And *a crunch* might come much sooner. *Foreign investors* and *big businesses* （that mostly serve *English customers*） could well[[37]](#footnote-38) move south.

Westminster has ruled out[[38]](#footnote-39) a currency union——correctly, given that the nationalists propose a deficit-widening fiscal splurge / and that *the assets* of Scottish banks are an alarming 12 times *the country's GDP*. It might relent, but *only if[[39]](#footnote-40)* Scotland agrees to such strict oversight that independence ends up meaning little.

The nationalists say that kinks (over currency and the like) could be worked out amicably——that it would not be in Britain's interests {to antagonise its new northern neighbor}, particularly since (they hint darkly) Scotland could refuse to take on *its share* of the national debt.

They are far too sanguine. If Scotland goes, *the rest* of Britain will be furious, both at *the Scots* and at *their own leaders*, (who will be impelled to drive *a hard bargain*).

Mr Salmond is on stronger ground (when he argues that [if Scotland does not leave Britain] it might be dragged out of the EU against its will. This is indeed a danger, but in going independent Scotland would swap the possibility of an EU exit for a certain future as a small, vulnerable country. Its best hope of remaining influential is to stay put, and fight the Eurosceptics.

A lot to lose

In the end the referendum will turn not on calculations of taxes and oil revenue, but on identity and power. The idea that Scots can shape their own destiny, both at the referendum and afterwards, is exhilarating. Yet Scotland already controls many of its own affairs. Moreover, as Westminster politicians of all stripes have hastily made clear, if Scotland votes No, the devolved administration will soon get so much clout that the practical difference between staying in the union and leaving it will narrow. That would also lead to the distribution of power away from Westminster and to other bits of Britain, which should have happened long ago.

So by staying in, Scots will not just save the union but enhance it, as they have for 300 years. For the UK, with all its triumphs and eccentricities, belongs to Scots as much as it does to the English——even if increasing numbers of them seem ready to disown that glorious, hard-earned heritage, and to simplify their identities by stripping out one of those concentric rings. That goes against both the spirit of this fluid century——in which most people have multiple identities, whether of place, ethnicity or religion——and the evidence of the preceding three. For all its tensions and rivalries, and sometimes because of them, the history of the union shows that the Scots, Welsh, English and Northern Irish are stronger, more tolerant and more imaginative together than they would be apart.

联合王国分崩离析？

终止联合，对于苏格兰来说，会是一个错误；对于她出走之后的国家来说，会是一个悲剧。

以前的时候，英国小学生在设想他们这个有着各种复杂的网络和形形色色的臣民的地方在世界中所处的位置的时候，都会使用书写精心编排的邮政地址的办法：先写出街道；接着是城市，如伦敦、曼彻斯特、爱丁堡或者加的夫；继而是英格兰、威尔士、苏格兰或者北爱尔兰；然后是联合王国；再往后是欧洲、世界，宇宙⋯⋯。他们懂得，联合王国以及联合王国作为一个整体的足迹和成就，如工业革命、大英帝国、战胜纳粹和福利制度。所有这一切，就如同苏格兰的高地和英格兰的板球一样，都是祖先留给他们的遗产的一部分。他们本能地知道，这些身份的同心圆是相辅相成的，不是相互排斥的。

这些同心圆至少以前是这样的。但是，在9月18日的苏格兰独立公投后，其中的一层可能会不复存在，至少是不再会以三个世纪之前签署《联合法案》所认可的那种形式存在了。随着投票的日益临近，苏格兰民族主义者已经在民调中追了上了反对独立的联合阵营，甚至已经取得了微弱的优势。越来越多的苏格兰人认为，这个他们的士兵、政治家、哲人和商界人士花费了如此多的精力去构建并为其增光添彩的联合王国，不但没有呵护他们的苏格兰民族特性，反而是在扼杀他们的苏格兰民族特性。这个伟大的多民族国家可能会在一天之内，被一次将只有7％的公民参与其中的投票所毁。这种曾经不可想像的结果，对于苏格兰来说，是糟糕的，对于其身后的联合王国来说，是悲剧性的。

分家的危害

苏格兰离开后的英国无足轻重，会在所有的国际论坛中遭人轻视。为什么要对一个连自己的民众都避而远之的国家高看一眼呢？由于英国是公认的自由贸易和维护国际秩序的代表，因而，对于这个世界来说，这会是一个糟糕的结果。英国的核大国地位会存在不确定性。因为她的核潜艇基地就位于苏格兰的一处海湾中，且不能被迅速转移。英国离开欧盟的可能性也会增加。这是因为苏格兰人对欧州有更多的好感，这是英格兰人所不及的。同时，苏格兰人不大有可能把选票投给已经承诺在明年大选获胜后将就英国是否离开欧盟举行一次公投的保守党。英国离开欧盟的前景会吓坏投资者，其程度远远大于苏格兰可能离开英国。

苏格兰民众将独自决定英国的未来，他们没有义务为他们身后之国的前途担忧。但是，考虑到大家已经一起过成功地过了这么长的时间，尽管这种联合危在旦夕，苏格兰人的利益仍然是同英国其他人的利益是息息相连的。这一点也许并不令人吃惊。

民族主义阵营的核心观点认为，如果单过，苏格兰会成为一个更加繁荣、更加平等的国家。民族主义者说，苏格兰富有石油，天生的正人君子，但是却被一个始终还在对其施加无情政策的政府给搞穷了。在他们看来，落在他们头上的几乎所有的不幸，如制造业的衰落、健康状况不佳以及在高地地区邮寄包裹的高价格，责任全在历届英国政府。苏格兰民族主义者的领导人亚历克斯·萨尔蒙德的指责很有代表性。他说：说到对苏格兰的不重视，工党和保守党没有什么两样。

但是，苏格兰经济的相对衰落不是南方不重视的结果，而是由于制造业和航运业转移到亚洲所致。如果说英国政府一直没有完全扭转全球化和技术的有害影响，那是因为这样做是不可能的。民族主义者对此心知肚明。因而，他们会不动声色地延续英国政府的许多政策。相反，他们所做的大多是一些微调，如取消最近专为迫使民众搬出面积过大的公租房而设计的“卧室税”就是如此。为这等小事而拆散一个国家，最近的种种烦恼无异于疯言疯语。

民族主义者的经济学也是有缺陷的。实际上，苏格兰不会因为单过而更加富有。今后来自北海的税收收入也就是刚够这个花起钱来大手大脚且今后再也得不到英国政府资金援助的政府的额外开支之用（英国政府去年花在苏格兰的开销，按人头算，比花在其他地区的大约多出1300英镑）。但是，石油收入是不固定的。它们能在2008财年给苏格兰带来115亿英镑的收入，但是，在2012财年只有55亿英镑。倘若一个独立的国家准备利用建立一支石油基金的办法来填平这些波动，那么，现在可用来支出的现金就必然会有所减少。总之，石油正在慢慢地耗尽。为了维持石油耗尽后的政府开支，税收必然会提高。关键时刻的到来可能会大大提前。大多数为英格兰客户服务的外国投资者和大公司很可能会搬到南边去。

英国政府已经排除了货币联盟的可能性——考虑到民族主义者建议大幅提高财政赤字以及苏格兰的银行资产已经令人警醒地达到该国GDP12倍这两个事实，这个决定是正确的。如果苏格兰同意对其进行严格得令独立失去意义的监督，事态本来是有缓和余地的。苏格兰民族主义者说，有关货币问题的纠结能够和平解决。激怒北方的新邻居不符合英国的利益，特别是在苏格兰可能会拒绝承担它应该承担的那部分国家债务的情况下更是如此。他们乐观得过头了。如果苏格兰离开英国，其他地区将会对苏格兰人以及他们自己的领导人产生极度的不满，使得这些领导人被迫去推动一场艰苦的讨价还价。

萨尔蒙德说，如果苏格兰不离开英国，它可能会受到拖累，在违背其意愿的情况下，被迫离开欧盟。他的这番话是很有道理的。这确实是一个危险。但是，如果苏格兰选择独立，就等于是在拿未来成为一个脆弱小国的确定性来交换离开欧盟的可能性。对苏格兰来说，保持影响力的最佳希望就是留下来，同疑欧派进行斗争。

会失去很多

总之，公投既取决于对税收收入和石油收入的计较，也取决于身份和权力的认同。认为苏格兰人能在公投中和公投后塑造其自身命运的想法是令人神往的。然而，苏格兰早就在掌控自己的事务，而且还不在少数。（即便是在运作着权力下放政府同时还在推动独立公投的萨尔蒙德的苏格兰民族党至今仍未使用这些权力的情况下也是如此）。此外，英国政府中所有政党的政客已经匆忙地表明了这样一个想法：如果苏格兰投票反对离开，那么，权力下放政府不久就会得到更多的权力，这不仅会让留下来和离开之间几乎不存在实际的差距，还会带来早就应该有的来自英国政府的权力分散以及将权力交给其他地区。

因此，如果苏格兰选择留下来，它不仅会拯救联合王国，还会让联合王国变得更强大，就像他们在过去的300多年中一直在做的那样。因为，这个有着种种成就和怪癖的联合王国，不仅是属于英格兰的，也是属于苏格兰的——纵然是在准备放弃来之不易光荣传统、准备强行拆除那些同心圆中的一个以简化自己的身份的人似乎越来越多的情况下也是如此。离开联合王国，既是对这个大多数人都拥有地域、种族或者宗教等多重身份的流动世纪的精神的背叛，也是与上述三种身份的证据不相符的。联合王国的历史告诉我们：尽管苏格兰人、威尔士人、英格兰人和北爱尔兰人之间不乏关系紧张和竞争对立，同时，有时也正是因为这些对立和竞争，才使得他们在团结在一起时比分开来单过时，更加强大，更具宽容性，更有想像力。

物理学家用光托起小机翼

Think about flying and you no doubt think about air. The wind in your face, the wind at your back, the wind beneath your wings. Now physicists note that light can also give you a lift. Their work appears in the journal Nature Photonics. [Grover Swartzlander et al., "Stable Optical Lift"]

Staying aloft is a matter of dealing with pressure. In the case of a plane, it’s the difference in pressure on the top and bottom of its wings that keeps the craft afloat. But air isn’t the only way to generate pressure. Light can do the same. When photons pass through or reflect off of something, they give that object momentum. That’s why comet tails always point away from the sun. Solar radiation and wind push them that way.

So physicists got to wondering whether radiation pressure could be harnessed to help an item soar. The craft they deployed was a wing-shaped rod the size of a bacterium. They plopped this rod into a beaker of water and hit it with a laser beam from below. And found that the rod moved upward and to the side—a sign of optical lift. The finding could aid the design of solar sails for interstellar sojourns. And perhaps give new meaning to the phrase “traveling light”.

试想一下在空中飞行，你肯定会想到气流。气流冲击着你的脸，你的背，也在你的机翼下流过。现在，物理学家注意到光也能把你托起。这一结果发表在《自然·光子学》杂志上[Grover Swartzlander et al., "Stable Optical Lift"]。

在空中停留必须解决的一个问题是压力。以飞机为例，机翼上方和下方的压力差让飞机悬在空中。光同样能够如此。当光子穿过某一物质，或者从某一物质反射回来时，就会给该物质一定的动量。这就是慧尾总是指向背离太阳方向的原因，因为太阳射线和太阳风把慧尾吹向这个方向。

因此，物理学家想知道射线的压力能否把一些物质托起来。于是他们发明了一种只有一个细菌那么大，呈机翼形状的杆状飞行器。物理学家们把这个杆状飞行器放在了一个装满水的烧杯里，在用一束射线从下方照射。结果发现这个飞行器的确向上方和杯壁方向移动，说明光的确能够托起一些物质。这一发现可以帮助设计能够在星际间停留的太阳飞船。也许还能给“观光之旅”一个新的定义。

避税 数据革命

Tax evasion

The data revolution

It will soon be a lot harder to hide money overseas

THE war on those stashing undisclosed money offshore intensified this week when 47 countries, including the Group of 20 and some prominent tax havens, sealed a pact that will shake up the sharing of tax information. Under the present system, countries have to file requests with each other for data on suspected cheats. Even reasonable enquiries are often rejected as “fishing expeditions”. In future the signatories—and dozens of others that will be pressed into joining later—will automatically exchange information once a year. This will include bank balances, interest income, dividends and the proceeds of sales, which can be used to assess capital-gains tax.

Some countries are likely to set up special arrangements, with reduced penalties, to encourage non-compliant taxpayers to bring money home now rather than wait to be caught once the new system kicks in, probably in 2017. The deal also increases pressure on banks to identify the ultimate owners of shell companies and trusts, behind which tax evaders often hide.

The catalyst for the agreement was America's Foreign Account Tax Compliance Act (FATCA). The law, passed in 2010, will soon impose stiff penalties on foreign financial firms that fail to declare their American clients. Once America began pushing for automatic declarations, other big countries did the same.

The most eye-catching signatory to the accord is Switzerland, whose banks were at the centre of the scandals that gave rise to FATCA. The world's most famous offshore wealth-management centre was built on supposedly ironclad bank secrecy, but it has been forced to buckle under international pressure. This is momentous: for the Swiss, agreeing to swap client data systematically is the cultural equivalent of Americans giving up guns. Singapore, which has earned a reputation as the Switzerland of the East, is also a party to the deal.

Several challenges must be overcome to make it work. Data-collection systems need to be upgraded and harmonised. Even the most sophisticated tax authorities could struggle to process the deluge of information coming their way. Without assistance, poor countries whose elites dodge taxes using rich-world havens will not reap the benefits.

More havens need to be brought into the fold. Britain's offshore satellites, such as Jersey and the Cayman Islands, are grudgingly on board. But it will be harder to corral Panama, Dubai and the havens dotted around the Indian and Pacific Oceans. Until they sign up, the likes of Switzerland and Luxembourg may have an excuse to drag their feet in implementing the new rules.

Still, the pace of change has been remarkable. Global information exchange, unthinkable a decade ago, is within reach. Tax evaders can be ingenious, but their options are narrowing fast.

避税

数据革命

要寻找资金的“海外掩体”将难上加难

本周，随着47个国家共同签署了关于提高税务信息共享标准的协议，打击海外资金藏匿的战争愈演愈烈，而上述国家当中，还包括了“20国集团”，以及其他一些著名的“避税天堂”。

在现有的机制下，国家之间对涉嫌舞弊的财务信息的追查，必须通过发函请求的方式来完成。有时一些较为合理的信息追查请求，都会被认定为“钓鱼式刺探”，遭到拒绝。在未来，所有协议签署国，都会每年一度自动共享交换财务信息，而许多未签署的国家，接着也会迫于压力加入到这一协议当中。协议中要求共享的信息包括：银行存款、利息收益、股息分配，和销售收益情况，都是能够被用于衡量企业资本利得税的指标。

部分国家政府倾向于在较为温和的惩罚条件下，实施特殊的安排，以鼓励偷税漏税者马上把钱转回国内，以免在2017年很可能推出的新系统力量下被抓出来。同样地，政府还对银行施加压力，要求他们识别出空壳公司与信托基金的最终控制人，让偷税漏税者无处可藏。

本次协议的催生因素，是美国国外账户应税法案（America's Foreign Account Tax Compliance Act，FATCA）的颁布。这部2010年通过的法案，将要求政府对未按要求披露美国本国客户情况的外国金融公司，进行严厉的惩罚。一旦美国开始推行自动财务信息披露的机制，其他大国也会纷纷效仿。

本次最引人注目的协议签署国便是瑞士。瑞士的银行深陷财务丑闻当中，并由此导致了FATCA法案的颁布。作为世界上最著名的海外资金管理中心，瑞士的银行本应是银行机密坚守者，然而迫于国际压力他们不得不做出让步。这是一项非常重大的变化：对于瑞士来说，彻底地对外交出银行客户数据，就等同于让美国人放弃自己的武器使用权。而有着“东方瑞士”美誉的新加坡，同样地签署了这份协议。

为了使新机制顺利运行，有几大问题需要克服。首先是数据采集系统的更新与协调。就算是最成熟的税务机关，要处理即将到来的巨量数据，也同样是一个非常棘手的任务。贫困国家的精英们往往通过富裕国家的“避税天堂”来偷税漏税，而在没有外来助力的情况下，这些贫困国家也难以在此协议中获益。

其次，还有更多的“避税天堂”需要被带入此协议标准当中。就像是泽西岛和开曼群岛等英国离岸属地一样，勉强地加入了该协议。而要将巴拿马、迪拜，以及环太平洋和环印度洋分布的海外“避税天堂”等地也纳入协议当中，则更为艰难。只要这些国家一天不加入该协议，像瑞士和卢森堡之流，便有借口去拖延新机制的执行。

但就总体而言，这已经是一次非凡的转变。十年前如白日梦一般的全球信息交换机制，已经在咫尺之间。避税者们虽然十八般武艺俱全，但可供他们使用的花招已经不多了。

http://www.kekenet.com/broadcast/science/List\_23.shtml

1. 可是，自1960年代开始的英国白厅对英国政治家们展开的一系列调查之后，这种印象开始改变，因为调查发现，事实却完全不是那么回事。 [↑](#footnote-ref-2)
2. **pecking order** [ˈpekɪŋ] N-COUNT**（群体中的）尊卑秩序，权势等级** The pecking order of a group is the way that the positions people have are arranged according to their status or power within the group.

   He knew his place （in **the pecking order**）... 他知道自己排老几。

   They both came from families （fairly far down **the social pecking order**）. 他们两个都来自**社会最底层的家庭**。

   （peck [pek] vt. 啄，啄食;啄出，啄穿;〈非〉轻吻，以迅速敷衍的方式亲吻。vi. 啄;小口地吃;不断地批评，吹毛求疵。） [↑](#footnote-ref-3)
3. where-as [ˌweər-ˈæz] conj.①（表示对比）但是，然而；反之。②考虑到…、鉴于…

   whereas是从属连词,多引导「对比状语从句」,含意上相当于while,但语气更强,也更正式。

   whereas偶尔也可引导「让步状语从句」,这时主句和从句常有对偶关系。

   Pensions are linked to inflation, **whereas** they should be linked to *the cost* of living... 养老金与通货膨胀挂钩，然而它们其实应该和生活费用挂钩。

   **Whereas** *the population* of working age increased by 1 million [between 1981 and 1986], today it is barely growing. 1981年到1986年间，适龄工作人口增长了100万，而现如今该人口数却几乎没有增长。 [↑](#footnote-ref-4)
4. **in keeping with和…一致，符合**；与…协调

   That is **in keeping with** *the mutual nature* of insurance, whereby many buyers put in *more than* they get out. 这符合保险业的共同特点，正是这一特点使许多买保险的人付出多于所得。

   Many of *the plan's targets* are **in keeping with** *existing（adj.） trends*. 这项规划的许多目标，是要保持当前的趋势。 [↑](#footnote-ref-5)
5. 表现遗传学——目前分子生物学最热的话题之一 ——是这样一个过程，基因的激活或是失效，取决于被称为“甲基和乙酰基的化学结构”的存在或是消失。 [↑](#footnote-ref-6)
6. **pass on to传给**

   What values do you most wish to **pass on to** your new baby? 什么价值观，你最想传授给您新的婴儿呢？

   Consequently, there is a cost involved for the insurance, which spreadbetting firms **pass on to** clients 方式状by widening the spread on their prices. 当然，这种保证是有成本的，价差交易公司通过扩大其价差幅度，将这一成本转嫁给客户。 [↑](#footnote-ref-7)
7. **status quo** [ˌsteɪ-təs ˈkwəʊ] **n.现状**

   We must not return to **the status quo**. 我们决不能恢复原状。 [↑](#footnote-ref-8)
8. **put in place ①实施；实现；做到；②把…放到合适的位置**

   The ban was **put in place** 目的状to reduce *the chances* of environmental damage from *oil spills* / and [in part] 目的状to protect the tourist industry. 实施这项禁令的目的，是消除石油泄漏可能对环境产生的污染，另一部分原因是保护旅游业。

   {What *system* of rules} has been **put in place**? 中共已制定了什么样的规则体系？ [↑](#footnote-ref-9)
9. **as with 如同，和…一样**，就…而言，

   But **as with** most breakthrough innovations, they have experienced growing pains. 可与绝大多数其他突破性创新一样，它们已开始体验到成长中的阵痛。 [↑](#footnote-ref-10)
10. **then ADV也就是说，总之（引出总结或结论）**

    By 1931, **then**, France alone in Europe was a country （of massive immigration）. 也就是说，到 1931 年的时候，法国是欧洲唯一一个拥有大量移民的国家。 [↑](#footnote-ref-11)
11. **get the cold shoulder受到冷遇，讨个没趣** [↑](#footnote-ref-12)
12. Political Spectrum [ˈspek-trəm] 政治光谱（是一种体现不同政治立场的几何坐标模型） [↑](#footnote-ref-13)
13. **once** CONJ-SUBORD 连词 **一旦…（就…); 一…（就…）**

    The decision had taken [about 10 seconds / **once** he'd read a market research study]... 在他看过一份市场调研报告后，大概10秒钟就作出了决定。

    [**Once** customers come to rely on these systems] they almost never（adv.） take their business elsewhere... 顾客一旦依赖上这些系统，几乎就不会光顾其他商家。 [↑](#footnote-ref-14)
14. **on offer** PHRASE **提供的；供使用的；待售的** If there is something **on offer**, it is available to be used or bought.

    ...country cottages （**on offer**） （at bargain prices）. 低价出售的乡村别墅

    Savings schemes are the best retail *investment products （****on offer****）*. 储蓄方案是现有的最佳零售投资产品。 [↑](#footnote-ref-15)
15. **tinke-ring** ['tɪŋkə-rɪŋ] **VERB 动词小修;小补;摆弄** If you **tinker with** something, you make some small changes to it, in an attempt to improve it or repair it.

    VInstead of the Government admitting its error, it just **tinkered with** the problem... 政府没有承认错误，只是敷衍了事地处理问题。

    They **tinkered with** the engine… 他们修了修发动机。

    It is not enough to tinker at the edges; our objective must be to reconstruct the entire system. 只在外缘做一些小修小补是不够的，我们的目标必须是重建整个系统。 [↑](#footnote-ref-16)
16. **stability（n.）-promoting（v.）促进稳定**（这个词应该是作者自创的，词典里没有）

    *Labor* and *social security* are *significant conditions* 目的状in maintaining *society stability* / and promoting *economic development*. 劳动和社会保障事业，是维护社会稳定、促进经济发展的重要条件。 [↑](#footnote-ref-17)
17. **emotional rock 情感上的坚实后盾**（rock 岩石） [↑](#footnote-ref-18)
18. 此处的revenge [riˈvendʒ] 是个n.。但注意：它也有revenge for的动词词组，v. 为…报复，复仇。 [↑](#footnote-ref-19)
19. better off比较富裕；情况好转

    Everyone is much better off than when china began its *economic reforms* in 1978. 与1978年经济改革刚开始时相比，现在每个中国人的生活都好了许多 [↑](#footnote-ref-20)
20. guinea pig ['ɡɪnɪ pɪɡ] n. [动]豚鼠，天竺鼠；试验品，实验对象 [↑](#footnote-ref-21)
21. student body 学生（总称） [↑](#footnote-ref-22)
22. to a greater degree 在很大程度上 [↑](#footnote-ref-23)
23. come out PHRASAL VERB 结果是；到头来

    In this *grim little episode* of recent American history, few people come out well... 在美国近代史上这一小段阴暗时期，很少有人能有好的结果。

    So what makes a good marriage? Faithfulness comes out top of the list... 那么，是什么造就了美满的婚姻呢？结果表明忠诚是第一位的。 [↑](#footnote-ref-24)
24. On the face of 表面上看来；凭表面现象

    This is plain [on the face of the facts]. 这一点，从事实的表面就可以清楚地看出来。 [↑](#footnote-ref-25)
25. Get one's goat 激怒某人。（直译是“把某人的山羊偷走”） [↑](#footnote-ref-26)
26. in the form of…… 在形式上，以…的形式

    The company also likes to spread a little holiday cheer [in the form of annual bonuses]. 公司还以年度资金的形式，让员工的节日过得更加开心。 [↑](#footnote-ref-27)
27. the Act of Union （of 1801）：《1801合并法》，是1801年英国议会通过的法令，规定英格兰、苏格兰、威尔士根据宪法，合并成大不列颠王国。 [↑](#footnote-ref-28)
28. opinion poll n. 选举投票，民意测验（①opinion [əˈpɪ-njən] n. 意见；看法；主张；见解。不可数名词舆论；（群体的）信仰，观点。②poll [pəʊl] n.，v. 民意测验；民意调查） [↑](#footnote-ref-29)
29. in a single day 在一日之内 [↑](#footnote-ref-30)
30. remain of sth …留下

    What will remain of the old city / if *the new road* is built through the centre? 如果修建一条横穿市中心的路,旧城还能剩下什么?

    Nothing remained of our house / after *the bombing raid*. 那次轰炸之后，我们的房子荡然无存。 [↑](#footnote-ref-31)
31. what has become of someone or sth., …怎么样了；…会怎么样。发生， 结果是

    What will become of those refugees? 那些难民会落得什么结果呢?

    What has become of my dictionary? 我的词典到哪里去了? [↑](#footnote-ref-32)
32. at the heart of后面接抽象物，可表示 “……的中心（思想）/核心是”。 [↑](#footnote-ref-33)
33. all of a piece （adj.） （与…）一致的，同性质的（一致的；成为一个整体）

    At its peak in the Thirties, *Underground design* and *architecture* was all of a piece... 在30年代的顶峰时期，地铁的设计和建筑风格都一模一样。

    *The new measures* are 表all of a piece with the government's policy. 新措施和政府的政策完全一样.

    Her recent indifference to her work is all of a piece with her troubled mental state. 她最近对工作冷淡与她那不安的心境有关. [↑](#footnote-ref-34)
34. If 连词(表示与句子主要部分的陈述稍有不同) 即便，纵然，虽然

    Sometimes, that standard is quite difficult（adj.）, if not impossible, to achieve... 有时即便有可能达到那个标准，那也是非常困难。

    I'm working on my fitness / and I will be ready [in a couple of weeks], if not sooner... 我正在调养身体，最多两三周以后就可以了。 [↑](#footnote-ref-35)
35. sotto voce [ˌsɒ-təʊ ˈvəʊ-tʃi] adv. 音调甚低地，低声地。(说话)轻声地，悄悄地 [↑](#footnote-ref-36)
36. over PREP关于；由于

    The women were making a fuss over nothing. 这些女人是在无谓地小题大做。

    ...concern （over *recent events* （in Burma））... 对缅甸近期所发生事件的关注

    Staff （at some air and sea ports） are beginning to protest over pay... 一些机场和港口的职员，开始抗议薪酬太低。 [↑](#footnote-ref-37)
37. well ADV（用于may，could等动词后，表示可能发生）有理由地，很可能地

    The murderer may well come from the estate... 凶手很可能来自那个庄园。

    Ours could well be the last generation for which moviegoing has a sense of magic. 我们这一代很可能是认为“到电影院观影具有一种魔力”的最后一代人了。 [↑](#footnote-ref-38)
38. rule out 用直线划掉；宣布…不可能，排除…的可能性。排除;不予考虑。（rule v. 动词(用尺等)画(直线)。判定;裁定;裁决） [↑](#footnote-ref-39)
39. only if 除非，唯有。只有当… [↑](#footnote-ref-40)