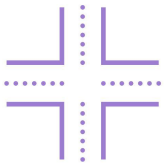
01번 교차로의 위험한 교통 상황

Dangerous traffic conditions at the intersection



[1] Dear Councilmember Reid, I am pleased to see you are living up to your campaign promises on the issue of traffic improvements.

[2] There are far too many individual traffic situations needing attention to enumerate them all, but I would like to draw your attention to a particular intersection.

[3] The intersection of Main and Center Streets in Springfield is filled with danger for the dozens of elementary school children who cross these streets every day.

[4] Without a traffic light or crosswalk there, it is only a matter of time until tragedy strikes.

[5] Please pay special attention to this situation before the new school year starts.

[6] Your constituents will thank you; their children will thank you.

[7] Yours faithfully, Brandon Hardest.

02번 Dar 시내에서의 호텔 투숙

Hotel stay in downtown Dar

[1] Outside the airport doors, I confronted the usual collection of cab drivers waiting to prey on arriving visitors.

[2] The cab was like a toaster on wheels and I was the bread – white bread – processed and enriched!

[3] My old taxi moved slowly into downtown Dar with its passenger bothered by heat.

[4] What I saw was neither pretty nor inviting, but I praised God when we finally arrived at my hotel of choice – until I saw that it was no longer there.

[5] Minutes later, we arrived at my second choice.

[6] I was by that time thoroughly cooked from the toaster taxi and ready to be buttered.

[7] At the first hotel I was able to recognize as being a hotel, I asked my driver to stop and quickly jumped out of the cab.

[8] Welcome to the Hotel Continental: TV, toilet and shower, across from the railroad station, two blocks from the ocean, six or seven blocks from downtown, breakfast included.

[9] Perfect!

[10] I was home at last!

03번 꿈과 공상의 힘

The power of dreams and fantasies

[1] There is an inspiring thing that ambitious and successful people normally do.

[2] You will have been doing this if you are ambitious.

[3] They dream and fantasise.

[4] In line with Mark Victor Hansen's prescription, they make up a dream list comprising at least one hundred prioritised goals that they want to accomplish in their lifetime.

[5] Then they imagine that they have all the money, time, friends, and other resources needed to achieve these goals.

[6] Amazingly, after doing this, they soon experience tremendous progress as extraordinary things begin to happen in their lives.

[7] It is recommended that you do the same.

[8] This will give you leverage to set out on the adventure of moving from success to greatness.

[9] Thomas Edison said, 'We shall have no better conditions in the future if we are satisfied with all those which we have at present.

04번 자녀를 위해 일을 해 주는 것의 위험성

The dangers of doing things for one's children

[1] We love our children and do not want to see them struggle, so we do things for them.

[2] The story of the man who was walking in the forest and saw a butterfly struggling to get out of its cocoon illustrates this point.

[3] The man went over to the butterfly and very carefully took out his knife and slit open the side of the cocoon so that the butterfly could get out more easily.

[4] The beautiful butterfly flew away for about ten yards, then fell to the ground, and died of exhaustion.

[5] You see, the butterfly needed to build up his strength and stamina by struggling to get out of the cocoon.

[6] When the man made it easier for the butterfly to fly away without developing fully, the butterfly could not live in the world on his own.

[7] When we do things for our children instead of letting them learn how to do things for themselves, we deprive them of the strengths they need to survive in the real world when we are not there.

[8] One change we can make as parents is to change from doing to and doing for, to doing with our children.

05번 불안정한 환경에서의 번식 전략

Breeding Strategies in Unstable Environments

[1] Species inhabiting unstable environments are opportunists.

[2] They must seize resources while they are there and to achieve this they must be able to reproduce rapidly.

[3] Producing large numbers of progeny, they can afford only the minimum investment in each.

[4] In plants, small seeds containing few nutrients are released in huge numbers.

[5] Among animals, large numbers of eggs are laid and abandoned to their fate or, if they are mammals, large litters are produced several times a year.

[6] Survival rates for the progeny are low, but the resource is overwhelmed and competitors are excluded by sheer weight of numbers.

[7] As a reproductive strategy it is highly successful and is known as r–selection ('selection' because it results not from some deliberate scheme devised by the organisms or their ancestors, but by natural selection, which favours it).

[8] It is a typical adaptation to unstable environments, shared by primary colonizers of newly cleared sites.

06번 동물의 가축화

Animal domestication

[1] Domestication had long-range consequences for the animals themselves; the very nature of the animals changed throughout the process – typically not in the animals' favor.

[2] Through domestication, once-wild animals become increasingly more dependent on humans, physically and emotionally.

[3] Because a handful of traits (such as curiosity, lack of fear, willingness to try new things, food begging, submissiveness, etc.) found among the juveniles of a species are those selected in domestication, the physical traits of the young (shorter faces, excess fat, smaller brains, smaller teeth, etc.) will also be selected.

[4] This leads to modern domesticates that are physically and behaviorally unable to live independently and that are, in fact, perpetual juveniles.

[5] Once humans began selectively breeding their animal charges to emphasize or discourage certain physical or behavioral traits, the animals changed even further.

[6] Today, domesticates are, for the most part, smaller (yet fleshier), more brightly colored, with shorter faces, and rounder skulls.

[7] In addition, domestication has resulted in a permanent loss of genetic diversity within the species.

07번 가정의 식품 안전 관리

Food Safety Management at Home

[1] If we are going to decrease the number of cases of food poisoning, then everyone who interacts with the food in any way from the farm to the table must take responsibility for the safety of his or her food.

[2] Food scientists believe that one of the least controlled steps from farm to table is in the home or wherever consumers handle and prepare the food after they buy it.

[3] This belief goes back to the idea that foods are inherently unsafe in their natural state and that a scientific understanding of what causes safety problems leads to development of technology that provides safer foods.

[4] Food companies that produce the packaged foods we buy and restaurants that prepare the meals we eat have access to this knowledge, but many consumers do not.

[5] When food inspectors went into homes using the same forms they use in restaurants, they found that more than 99% of homes failed!

09번 Louis Agassiz의 생애

The Life of Louis Agassiz

[1] Louis Agassiz was born on May 28, 1807, in Motier, Switzerland.

[2] He earned a medical degree from the University of Munich and a Ph.D. in zoology from the University of Erlangen.

[3] From 1829 to 1842, he focused on the study of fossil fishes and published studies of the natural history of Brazilian and European fishes.

[4] In 1836, Agassiz turned his attention to the geology of the Swiss Alps, his boyhood home.

[5] His interest was stimulated by his own investigations of fossils in the region and by recent writings suggesting that the existing glaciers had once been more extensive.

[6] He began to study the movement and effects of glaciers.

[7] Leading geologists thought that glaciers were static, but Agassiz noted evidence suggesting that glaciers moved, causing striations, or grooves, in rock and depositing massive boulders and debris.

[8] From his observations he concluded that in the past much of northern Europe had been covered in ice; he published this theory in 1840.

12번 성공하지 못하는 다이어트

An unsuccessful diet

[1] There are many reasons why diets are unsuccessful.

[2] Diet plans, particularly those that result in major losses, involve voluntary starvation.

[3] Low-fat diets eliminate the component in our food that carries flavor and enhances the eating experience during chewing, termed mouthfeel by food scientists.

[4] Since fat stays in the stomach longer than other food components, the time between feeling full and feeling hungry again for low-fat dieters is shorter.

[5] People on these diets tend to be hungry most of the time.

[6] High-protein, low-carb diets are more desirable and filling but tend to be high in fat unless whole foods are abandoned for protein powders, shakes, and bars.

[7] Diets high in water and fiber are filling and low in calories, but a lack of variety can become monotonous fairly quickly.

[8] All of these diets tend to eliminate favorite foods.

[9] It is possible to tell ourselves that we can forgo these temptations until we reach our target weight, but it is harder to be true to a diet if it means forever abstaining from what gives us pleasure.

13번 풍요로운 시대의 정치

The politics of an affluent age

[1] When do we share?

[2] What are the politics of equality?

[3] Horizontal herding patterns emerge when our times are safe and our resources plenty, such as those we find in democracies.

[4] Leadership in these situations is temporary, weak, and sometimes hardly existent.

[5] The security of the home spills over into the streets and promotes this mindset; everyone must be provided for and the weakest shall get the most attention.

[6] This social outlook creates the circumstances conducive to republics, democracies, and communes.

[7] These forms of government emerge in times of wealth and commercial exchange where socially we are surrounded by security and plenty.

[8] In such social situations, decisiveness is not likely vital.

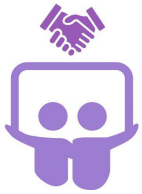
[9] Threats are few; expanding wealth and sharing it receives our attention.

[10] We are tolerant.

[11] Risk and change are okay.

[12] The richer and safer society becomes, the more we bring "family style" morality into the public square.

14번 협력과 나눔의 관계



The relationship between cooperation and sharing

[1] Young children are sensitive to inequality, expect it from others but not of themselves and are reluctant to share.

[2] There is, however, one set of circumstances which seems to trigger spontaneous sharing in children: those situations where they have to work together in order to gain a mutual benefit.

[3] Michael Tomasello and his colleagues in Leipzig set about testing his idea about the importance of cooperation in the evolution of human pro-sociality.

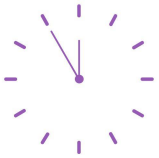
[4] Pairs of three-year-olds had to work together to pull on two ropes simultaneously in order to dislodge four marbles.

[5] The apparatus was designed so that it delivered three marbles to one child but only one to the other.

[6] In this situation, the 'lucky' child gave one of his three marbles to the 'unlucky' child.

[7] However, when there was no need for a collective effort, such as a windfall, they did not share.

15번 시간에 대한 가치 평가



Valuation of time

[1] In view of the many valuations we assign time, and in view of the fact that time is our most valuable commodity, it is striking to note how little thought we give to how we spend it.

[2] If a slightly annoying acquaintance asked you to invest money in her new business, you would probably consider the potential costs and benefits of the proposed transaction.

[3] If you judged her project a bad investment, you would have no problem saying no, even at the risk of offending her.

[4] After all, who rationally throws money out the window?

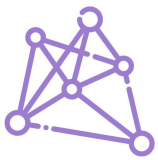
[5] But suppose the same acquaintance asked you to dinner.

[6] Chances are you would not engage in a similar cost–benefit analysis.

[7] No matter how little you wanted to go, you would probably take an hour out of your packed schedule to meet for dinner – all the while perhaps feeling resentment because of the time you sacrificed on something you did not want to do.

16번 소수의 변수만 사용하는 알고리즘

Algorithms that use only a few variables



[1] Daniel Kahneman, an Israeli–American psychologist and economist, believes that in most situations, simple formulas trump human intuition.

[2] In many areas, such as the evaluation of credit risk, the chance of sudden infant death, the prospects of success for new businesses, or the suitability of foster parents, algorithms make more accurate predictions than "expert" practitioners.

[3] Humans are horribly inconsistent in their valuations; algorithms are not.

[4] Experts want to take account of a whole range of complex information, but usually only two or three parameters are enough to make a good judgment.

[5] For instance, there is an algorithm for predicting the future value of Bordeaux wines using only three variables of weather, and it is much more accurate than the evaluations of professional wine tasters.

[6] Intuition or global judgment can be useful, but only after getting the facts – it is not a replacement.

[7] Expert intuition can be trusted only when the environment is stable and regular (e.g., in chess), not open–ended and complex.

17번 대중음악 작곡가의 역할

The role of a pop music composer

[1] The introduction of magnetic tape into music production in the late 1940s brought with it important changes in the situation for the profession of the popular music composer, as it enabled musical parameters that were difficult to notate, such as timbre (the quality of sound itself) and melodic and rhythmic inflection, to be more easily handled on a trial–and–error basis during the recording and mixing process.

[2] With this, the function of the composer became integrated into the recording process, which was carried out much more as teamwork.

[3] Although for legal reasons there was always someone named as composer, in practice it became more and more difficult to distinguish who exactly contributed what during the recording process.

[4] This was particularly the case since the sound of the music was normally finalized after initial recording through the 'mixing down' of a multitrack recording and the editing of this mixdown in a postproduction process.

[5] Frequently, in the rock genre, songs were co–credited to the performer and the record producer – for example, Bryan Adams and Robert John 'Mutt' Lange.

18번 공상 과학 소설의 목적

The purpose of science fiction

[1] Science fiction does not set out to predict the future – instead it's about asking, "What if?" for all kinds of scenarios.

[2] It doesn't matter if those possible futures are likely to happen or not, as long as they are interesting.

[3] The aim is to portray the human reaction to new and interesting circumstances.

[4] If the writer happens to be lucky enough to hit on a match with what really takes place in the future, that's great – but it certainly isn't the point of the stories.

[5] In the two words "science fiction," the "fiction" part has to dominate, because unless the book is a good tale, it doesn't matter how interesting or surprising the science it contains is.

19번 완벽주의자의 지나친 단순화

Excessive simplification of perfectionists

[1] A patient of mine who is more of an outwardly focused perfectionist feels angry when other people make errors, forget things, misplace objects that he needs, respond too slowly, or give him incorrect information.

[2] These kinds of things would probably bother most people, but for some perfectionists these errors feel personal.

[3] It can seem as if others are intentionally doing these things just to irritate you.

[4] In most cases, these situations are not that simple.

[5] They do not involve just the perpetrator (the one who made the mistake) trying to do harm to the victim (the perfectionist).

[6] There are usually many other circumstances that influence the situation.

[7] For example, the person giving misinformation may be new on the job, may have been misinformed by her boss, may be correct under different circumstances, or may have misunderstood the question.

[8] When you oversimplify, none of these "excuses" matter because you are focused only on the wrong–doing and your upset feelings.

20번 낮의 길이가 식물의 꽃에 미치는 영향

Effects of Day Length on Plant Flowers

[1] In 1920 two scientists discovered that plants, and especially their flowers, are peculiarly responsive to the length of the day.

[2] This varies from about twelve hours at the equator (a short–day region) to almost twenty–four hours at the Arctic Circle during their brief summer (a long– day region).

[3] Such astronomical data has, of course, been known for centuries, but Doctors Garner and Allard were the first to point out its significance to plants and their flowers.

[4] For instance, a short–day plant brought into a long–day region increased tremendously in vigor.

[5] Sometimes it changed its flower color, and most of all it changed its time of blooming.

[6] And this striking effect of the length of the day on flowers has already been commercially recognized.

[7] Florists, by darkening the greenhouses for retardation of bloom, or by electric illumination to speed it up, can now deliver flowers with far greater precision than before.

[8] This process was given its rather repulsive name of photoperiodism by its authors.

[9] It was a major discovery in the plant world.

21번 방어책으로서의 밝은색의 진화

The evolution of bright colors as a defense

[1] Clearly, bright colours are advantageous for prey defences.

[2] But how did they evolve?

[3] One possibility is that conspicuous colours evolved first, followed by distastefulness.

[4] For example, some brightly coloured birds like kingfishers are distasteful.

[5] Their colours may have been favoured for better mate attraction or territory defence and then, because they also increased conspicuousness to predators, this then favoured the evolution of distastefulness.

[6] The other possibility is that distastefulness came first.

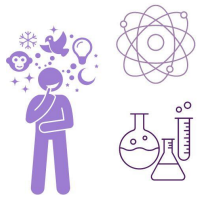
[7] This may apply to those insects, such as caterpillars of the monarch butterfly, Danaus plexippus, which feed on plants containing toxins and incorporate the toxins in their bodies as a defence against predation.

[8] It is plausible that here distastefulness evolved first followed by conspicuousness.

[9] In this case, then, bright colouration evolves specifically as a warning device.

22번 상상력과 과학의 관계

The relationship between imagination and science



[1] It is sometimes said that the job of science is to discover facts.

[2] This has to be qualified, however.

[3] The empiricist Francis Bacon (1561–1626) thought that collecting facts like a bee gathers honey is the right method of doing science: doing research is systematically collecting observations and compiling lists of data, and if the scientist does that carefully the scientific laws will be discovered automatically.

[4] However, it is highly implausible that science has ever been done in such a way because it is not an automatic process at all.

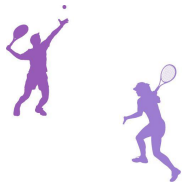
[5] One always starts from preconceived ideas when gathering data.

[6] You cannot do science without some power of imagination, without some idea of what to look for.

[7] For Bacon, however, imagination and fantasy constitute dangers for science, which should eschew prejudices ('idols'), and he put all his money on 'pure' empirical facts.

23번 스포츠에서 반응 시간의 타이밍

Timing of reaction times in sports



[1] It is a marvelous evolutionary story that some sports arrived at their superfast–but– not–too–fast timing.

[2] Tennis and baseball could have been structured to demand faster reactions, which would have tested pure reflexes.

[3] Or they could have allowed for slower reactions, which would have tested conscious responses.

[4] But if the service line or pitching mound had been just thirty feet away – or two hundred feet away – the games would have been less compelling.

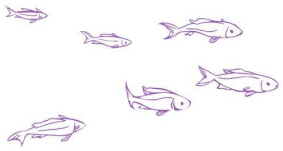
[5] At closer distances, the players would have had just enough time to react and hit, but not enough time to show off their preconscious preparatory skills.

[6] And at longer distances, players could have planned too much; incoming serves and pitches would have been lobs.

[7] Our fascination with the professional tennis serve and the major league fast ball comes not at a response time of two hundred milliseconds or at one full second, but somewhere in between.

[8] Four to five hundred milliseconds is a kind of sporting sweet spot.

24-25번 먹이와 안전 간의 균형



Balance between food and safety

[1] On a very cold day in winter normally shy birds become quite tame at the garden bird table, presumably because their increased need for food overrides the danger of coming into the open.

[2] Manfred Milinski and Rolf Heller studied a similar problem with sticklebacks (Gasterosteus aculeatus).

[3] They placed hungry fish in a small tank and offered them a simultaneous choice of different densities of water fleas, a favourite food.

[4] When the fish were very hungry they went for the highest density of prey where the potential feeding rate was high, but when they were less hungry the fish preferred lower densities of prey.

[5] Milinski and Heller hypothesised that when the fish feeds in a high density area, it has to concentrate hard to pick out water fleas from the swarm darting around in its field of vision, so it is less able to keep watch for predators.

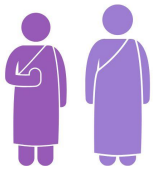
[6] A very hungry fish runs a relatively high chance of dying from starvation and so is willing to sacrifice vigilance in order to reduce its food deficit quickly.

[7] When the stickleback is not so hungry it places a higher premium on vigilance than on feeding quickly, so it prefers the low density of prey.

[8] The balance of costs and benefits shifts from feeding to vigilance as the stickleback becomes less hungry.

26-28번 부잣집과 가난한 집에 머문 두 수도승

Two monks who stayed in rich and poor houses



[1] Two monks were traveling together, a senior and a junior.

[2] They stopped to spend the night in the home of a wealthy family.

[3] The family was rude and refused to let them stay in the mansion's guest room.

[4] Instead they were given a small space in the cold basement.

[5] As they made their bed on the hard floor, the older monk saw a hole in the wall and repaired it.

[6] When the younger monk asked him why, he replied, "Things aren't always what they seem."

[7] The next night the pair came to rest at the house of a very poor, but very hospitable farmer and his wife.

[8] After sharing all the food they had, the couple let the monks sleep in their bed, where the monks could have a good night's rest.

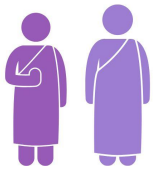
[9] When the sun came up the next morning, the monks found the farmer in tears.

[10] His only cow, whose milk had been his sole income, lay dead in the field.

[11] It looked like he couldn't understand why this had happened to him.

26-28번 부잣집과 가난한 집에 머문 두 수도승

Two monks who stayed in rich and poor houses



[12] The younger monk was infuriated and asked the older monk,

"How could you have let this happen?"

[13] And he continued, "The first man had everything, yet you helped him.

[14] The second family had little but was willing to share everything,

and you let the cow die."

[15] Things aren't always what they seem, the older monk replied.

[16] "When we stayed in the basement of the mansion, I noticed there

was gold stored in that hole in the wall.

[17] Since the owner was so obsessed with greed and unwilling

to share his good fortune, I sealed the wall so he wouldn't find it."

[18] Then last night as we slept in the farmer's bed, the Death God

came for his wife.

[19] I gave him the cow instead.

[20] Things aren't always what they seem.

[21] He continued, "Sometimes there is a time when things don't turn

out the way they should.

[22] If you have faith, you just need to trust that every outcome has

a reason.

[23] You just might not know it until sometime later."