Bijlage HAVO
2018
tijdvak 1

Engels

Tekstboekje
Carbon-based energy

For the developing world, where there are millions of people suffering from abject poverty, lack of drinking water, malnutrition, premature deaths etc., the priority is to achieve the fastest feasible rate of economic growth. Carbon-based energy is by far the cheapest source of energy and this is likely to remain so in the foreseeable future. As such, it is the energy of choice of developing countries. Taking the step of switching over to a dearer source of energy is something developing countries cannot 1.

M.R. Srivasatava
Ruwi

Times of Oman, 2013
Google meets grey matter

NOW we all have our heads in the cloud. According to a Harvard University study, many of us consider search engines to be electronic extensions of our brains and our reliance on sites such as Google has made us more forgetful.

This shouldn't come as a surprise. Using a calculator made my mental arithmetic rusty; my diary means I can rarely recall dates of meetings and dinners. It doesn't mean, as one online commentator fretted yesterday, that we are morphing into the Borg, just that we are living by the Einstein dictum: "Never memorise what you can look up."

I had to Google that quote.

*London Evening Standard, 2013*
Water safety, on tap

1 I've been following your ongoing Headwaters series with great interest. When my grandmother's family emigrated to North Battleford from London before the First World War, they lost two children to typhoid due to dirty water. So I had a personal interest in water safety when I was hired by the Inland Waters Directorate to complete and execute an automated planning and management system of B.C.'s freshwater network\(^1\) in 1984.

2 In 1991, our regional office was reorganized to include water quality on a Canada-wide basis, but the work was shut down in 1995 before it could be finished. The remnants of the federal freshwater and meteorology staff in B.C. were relocated, most to B.C.'s universities during the cost-cutting and layoff of 45,000 federal employees. For the past 20 years, the remnants of our staff have relied on university students to do the former federal work while they earned their degrees.

3 In 1995, I left after I was ordered to run scenarios of up to 90% cuts of our water safety monitoring network. I foresaw a Walkerton event happening in Canada and didn't want to be there when it did because our mandate was to protect the public. In 2000, Walkerton's deadly tainted-water nightmare struck.

4 Teaching Canadian students environmental science for the past 20 years has been an effort in vain unless the Inland Waters Directorate is reinstated to lead Canada's fragmented water safety efforts. With many of the directorate's former leaders soon to retire, a new generation is needed to protect freshwater safety.

Susan Rowntree, physicist, computing scientist for Inland Waters Directorate water survey of Canada and water quality, 1984 to 1995; Victoria

adapted from an article from theglobeandmail.com, 2015

noot 1 B.C.'s freshwater network = The freshwater network of British Columbia, a province of Canada
The raw and the clicked

1 THERE is "a huge difference between being late and being too late," said Dalton Philips, the boss of Morrisons, on November 21st, as he announced the launch of the British grocer's online-shopping service. Morrisons' competitors have been selling broccoli and baby food via the internet for more than a decade. Britain's fourth-largest grocery chain had shunned e-commerce as a profit-sapping distraction. It paid with falling market share and the defection of some of its best customers to Tesco, the country's biggest grocer, and Ocado, an online-only supermarket.

2 Morrisons' change of heart will be noticed beyond Britain. Grocery is the biggest category in retailing but the most resistant to the advance of online shopping. Even in Britain, where it has gone furthest, it may account for just 5% of sales this year. But it is growing fast everywhere.

3 Grocers have held back for good reasons. Like many bricks-and-mortar merchants they fret that online commerce will shrivel sales in stores but not the costs associated with them. Grocery, with its tiny margins, adds complications. Virtual shopping-carts contain dozens of low-value items, which must be stored at different temperatures. Retailers can either get in-store staff to pick them off the shelves, which becomes disruptive as volumes rise, or build dedicated warehouses, which is costly. So are home deliveries: even in thickly settled Britain each one costs grocers around £10 ($16), but shoppers typically pay little more than £3.

4 Consumers are also wary. Many want to examine fresh produce before they buy it. They recoil when online grocers deliver "substitutions" instead of what they ordered. Many shoppers try grocery websites but "get discouraged", says David Shukri of the Institute of Grocery Distribution in London. Yet to shun online is to risk losing grocers' best customers: prosperous families and those with children.

5 Among pioneers there have been spectacular wipeouts. California's Webvan expanded at breakneck speed, pampered customers with services like home delivery within half-hour slots, lost control of costs and collapsed in 2001. Its demise deterred imitators. In Britain Ocado has yet to make much money after more than a decade. Tesco claims its online operation, with nearly half the British market, is profitable. But it uses "murky" accounting for the cost of stores, where much of the produce is picked, says Andrew Gwynn of Exane BNP Paribas, an investment bank.

6 "It really is a prisoner's dilemma and you can't afford not to play," says Chris Biggs of BCG.

adapted from The Economist, 2013
A new reading of the old sob story

adapted from an article by Mark Honigsbaum

1 When it came to solving riddles like the one of the peacock's tail, Charles Darwin's powers of evolutionary deduction were second to none — the more extravagant their feathered displays, he reasoned, the greater their chances of attracting a peahen. But when he tried to account for the human propensity to weep, Darwin found himself at a loss and finally came to the conclusion tears do not serve a function. [18-1]

2 In this Darwin was almost certainly wrong. In recent decades, scientists have offered several accounts of how the capacity for tears may have given early hominids an adaptive advantage. These range from the aquatic ape theory, according to which tears were an adaptation to saltwater living, to the notion that by blurring our vision tears may serve as a "white flag" to potential aggressors — a signal that the crier is incapable of harm. Then there are the straightforward biological theories, such as the claim that tears evolved to keep the eye moist and free of harmful bacteria.

3 But perhaps the theory enjoying the widest currency at the moment is the notion that tears are a form of social signalling that evolved from mammalian distress calls — a clear visual signal in other words that someone is in pain or danger and needs help. "Tears are highly symbolic," says Ad Vingerhoets, a Dutch psychologist who has spent 20 years studying why and when we weep. "Crying signals helplessness, especially during childhood when humans are at their most vulnerable."

4 Although crying has been documented in apes, elephants and even camels, it seems that only humans produce emotional tears, and it is only in humans that crying behaviours persist into adulthood. The challenge is to explain why this should be so, given that crying also runs the risk of signalling our presence to predators. "When animals grow old, most no longer emit distress signals, presumably because it is too dangerous," says Vingerhoets. [18-2]

5 In support of his theory Vingerhoets points to the enlarged visual cortex in humans and old-world primates — a structure, he argues, that most probably evolved to read the nuances of facial musculature and other strong visual clues, such as tears and blushing. In addition, crying is an
emotional expression that signals appeasement and supplication in adults — something that he argues would have been __14__ in early human communities as a means of promoting greater mutual trust and social connectedness.

6 So far, so fine. But of course crying is not only associated with the human need for attachment. Tears can also be moral, signifying our sympathy with an injustice. Moreover, as the cultural historian Thomas Dixon points out, tears are sometimes associated with joy and ecstasy rather than grief and sorrow — hence the mass emotional displays during the London Olympics. Sometimes, as when we weep while chopping an onion, tears may signify nothing at all; at other times they may be an expression of profound grief or sadness.

7 More so than any other form of emotional expression, tears are also subject to shifting cultural and historical readings, symbolising piety and sensitivity in one age and hysteria and weakness in another. Whatever the trigger, however, there is a widespread belief that crying is emotionally cleansing, but even this may be a construct, says Vingerhoets. People frequently report feeling better after watching a Hollywood “tearjerker” with a friend, but when asked to watch a similar movie in a laboratory setting they usually report no improvement in mood at all. For Vingerhoets this is further evidence of the social function of crying. [__18-3__]

8 But while we may prefer to cry in the presence of friends and family, this need not be the case. As the pious tears shed by monks in contemplation of God attest, we can also shed tears for distant and highly symbolic attachment figures. What counts, it seems, is the feeling that our helplessness is being __17__.

theguardian.com, 2013
Counsel against despair


adapted from a Review by Raymond Bonner

1 Between 1990 and 2005, the US erected new prisons at the staggering and historically unprecedented rate of one every 10 days. Just in time, it seems — today there are more than 2m people in American jails, with another 6m on probation or parole. One in every three black male babies born in this century is likely to end up in prison.

2 Statistics such as these can be 20. But in the hands of Bryan Stevenson, a lawyer who has fought for nearly 30 years to put more "justice" into the American criminal justice system, they acquire meaning, a human face. Just Mercy is as deeply moving, poignant and powerful a book as has been, and maybe ever can be, written about the death penalty, and the failures of the administration of criminal justice.

3 Stevenson grew up poor in a segregated community. As a lawyer, he has experienced racism first-hand — strip-searched by a redneck prison guard; challenged by gun-toting police while in his car listening to music in the predominately white Atlanta neighbourhood where he lived; questioned by a judge as to why he was sitting at counsel table. Yet Stevenson offers us only snippets of his personal life, for he has not written a book about himself. He doesn't indulge in self-pity or self-righteousness. He just tells stories, real stories — some of which will make you gasp at the inhumanity of humankind.

4 My only quibble with Just Mercy is that Stevenson renders conversations in quotation marks, conversations that happened years ago — with his clients, with guards, with colleagues, with people he meets at the courthouse. This is, in my opinion, a practice that mars too many memoirs and non-fiction narratives. (I also cannot fathom why the publisher did not spend a few dollars on an index, the absence of which will diminish the usefulness of this book for the high school, university and law school courses where it should be required reading.) Be clear, however, those objections do not weaken the substance and importance of this book, which comes at a moment when conservatives have joined liberals in calling for reform of America's criminal justice system.
One significant reform might be achieved without legislation or money: prosecutors could live up to their \underline{23}. Contrary to the common understanding, the primary duty of the prosecutor is not to gain a conviction but to do justice. Most of the time they are synonymous; but not always. Examples of prosecutorial misconduct permeate *Just Mercy*.

To gain a capital conviction of Walter McMillian, a hard-working, semi-literate black man, for the murder of an 18-year-old white woman, the prosecutor put up three witnesses who lied under oath; one was threatened with the death penalty if he didn't tell the story the state wanted. Years later, when a man came forward with evidence that another of the witnesses had lied, the prosecutor threatened to indict him for perjury. (Stevenson weaves McMillian's saga through his book with as much suspense as any Scott Turow novel.) A book could be written about prosecutorial misconduct; only a page or two would be needed to record those prosecutors who have ever been sanctioned.

Stevenson is one of those individuals who manages to see the "better angels of our nature" and, amid all the horrifying accounts of injustice, he finds grace, dignity, humanity. It will be impossible for readers not to be affected by the description of one act of decency by a prison guard, or by the story of an elderly black woman, "Mrs Williams", who with head high, impeccably dressed in scarf and hat, summoned the courage not to let a policeman wielding a German shepherd deter her from walking into the courthouse. "Attorney Stevenson, I'm here," she pronounced proudly.

Representing men and women condemned to die exacts a heavy toll, physically and emotionally. After finishing a phone call with another client shortly before he was executed, Stevenson could not hold back the tears. "The lack of compassion I witnessed every day had finally exhausted me . . . I realized my life was just full of brokenness. I worked in a broken system of justice. My clients were broken by mental illness, poverty, and racism," he reflects. "It's time to stop. I can't do this any more," he writes, the italics his. But, of course, he can't stop, and because he doesn't a few more lives will be saved, in a system that is broken.

*FT Weekend, 2015*
Cops and Cameras

adapted from an article by Martin Kaste

1 Body-worn video cameras are quickly becoming standard-issue for American police, especially at departments in the process of reform. And in New Orleans, the troubled police department is now requiring almost all officers to wear the cameras. It has a dark history of corruption, racism and brutality. The low point may have been the Danziger Bridge episode, after Hurricane Katrina, when police shot unarmed people, then covered up the crime. The introduction of the cameras demonstrates the department's spirit of transparency. "They can help us have that unvarnished re-creation of what happened," New Orleans' superintendent of police Ronal Serpas says.

2 But what happens if an officer stops recording — say, right before someone gets roughed up? The chief says that kind of "selective recording" won't be tolerated. The department's body camera rules do not spell out the penalty for failing to record, though Serpas says a cop can be fired for being untruthful.

3 In the long run, the bigger problem may be a question of 29: Ursula Price works for the Independent Police Monitor, the office that investigates potential cases of police misconduct. When Price first called the department to ask for a body camera video, she had high hopes. She was looking for footage of an arrest in which the suspect was bitten repeatedly by a police dog. When she asked for camera footage, an officer quickly told her that there wasn't any — and when she asked why, he said he didn't know. Later, he told Price that there is video, after all. But it took 2½ weeks for her to see it. She says the whole system for finding out what videos the police have is clunky. "There have been some problems dealing with getting permission to view things that are public records and people having to sue, and judgments against the department, and fines and fees and such for not following the public records rules."

4 Sam Walker, emeritus professor of criminal justice at the University of Nebraska, Omaha, is an expert on police accountability; he talks to chiefs all the time. "I've really been struck by the extent to which people just assume this is the coming thing," he says. Cameras are especially appealing to troubled police departments that are under federal scrutiny.
Video lets a department signal its devotion to openness — but for that to mean something, it can't look as if the videos are just for the benefit of the police. New Orleans has decided to let officers watch their own videos before writing reports; Walker says that's not a good idea. "If an officer is planning to lie, video is a good guide to what kind of lie he can get away with. And that could feed into a public perception that the right to view the videos is a police privilege."

In New Orleans, Lt. Travis St. Pierre is demonstrating the new technology to random citizens. He introduces himself to one pedestrian, who immediately asks, "What's wrong?" You can't blame the guy for being a little freaked out. St. Pierre's camera fits over his ear, and the effect is sort of Robocopy. St. Pierre trains other cops on the cameras, and they've told him that the body cameras are changing behavior — on the part of the public. "They always have this one individual that likes to be disruptive, curse at the police, fight with the police, and when they got out and turned the camera on and informed her she was being recorded, she immediately said, 'Ah. OK,' and was not a problem at all. We're seeing a lot of that kind of stuff," St. Pierre says. It'll be interesting to see who ends up changing their behavior more in New Orleans — the police, or the people their cameras are pointing at.

npr.org, 2014
BUCKS A LA MODE

Good for you. Good for the Earth. Good to eat?

BY JOSH DZIEZA

1 Would you eat a bug to save the world? What if it looked like a burger? A 150-page report by the U.N.’s Food and Agriculture Organization makes the case that if we’re going to feed the world’s growing population, bugs need to be on the menu. To start with, insects are highly nourishing; many have as much protein per gram as beef and as many omega-3 fatty acids as fish, plus a bunch of vitamins and fiber. Then there’s the fact that raising bugs is far easier on the environment than raising mammals: crickets don’t need acres of pasture, nor do they belch methane or create mountains of manure — all factors that add to livestock’s 18 percent share of greenhouse-gas emissions.

2 Of course the argument against eating bugs is also quite compelling: they’re gross. But that’s a question of cultural conditioning, and pro-bug-eating entomologists, chefs, and environmental activists are looking for ways to change our palates. David George Gordon, author of The Eat-a-Bug Cookbook, likes to begin cooking demonstrations by asking his audience how many people in the room ate something that fell out of the butt of a chicken that morning.

3 Gordon thinks insects will make the leap, but when they do, they probably won’t look like the tempura-fried tarantula in his cookbook. "The idea of eating a whole anything is weird," he says. "People say, 'I can't eat
this. It's looking back at me." 35, he points to the work of researchers at Wageningen University in the Netherlands, who hope to purée mealworms into burgers and sausages. Copenhagen's Nordic Food Lab is working along similar lines with its bee-larvae-based granola and yogurt. (They describe the flavor as something like egg and honey with a hint of honeydew melon.) The most elegant bug offering to date comes from the Royal College of Art and Imperial College London, where a team of postgraduate students created the "ento box," a sleek bento-style container of insect-protein cubes. It looks a lot like sushi, which even a few decades ago was still regarded warily in the West. With the right packaging, maybe bugs could follow a similar path.

*Newsweek, 2013*
Physical attractiveness and careers

1 STUDIES HAVE shown that attractive women are more likely to be promoted than their plain-Jane colleagues. Because people tend to project positive traits onto them, such as sensitivity and poise, they may also be at an advantage in job interviews. The only downside to hotness is having to fend off ghastly male colleagues; or so many people think. But research by two Israelis suggests otherwise.

2 Researchers Bradley Ruffle and Ze'ev Shtudiner looked at what happens when job hunters include photos with their curricula vitae, as is the norm in much of Europe and Asia. The pair sent fictional applications to over 2,500 real-life vacancies. For each job, they sent two very similar résumés, one with a photo, one without. Subjects had previously been graded for their attractiveness.

3 For men, the results were as expected. Hunks were more likely to be called for an interview if they included a photo. Ugly men were better off not including one. However, for women this was reversed. Attractive females were less likely to be offered an interview if they included a photo.

4 At first, Ruffle and Shtudiner considered what they call the "dumb-blond hypothesis" – that people assume beautiful women to be stupid. However, the photos had also been rated on how intelligent people thought each subject looked; there was no correlation between perceived intellect and pulchritude.

5 So the cause of the discrimination must lie elsewhere. Human resources departments tend to be staffed mostly by women. Indeed, in the Israeli study, 93% of those tasked with selecting whom to invite for an interview were female. The researchers' unavoidable – and unpalatable – conclusion is that old-fashioned jealousy led the women to discriminate against pretty candidates.

6 So should attractive women simply attach photos that make them look dowdy? No. Better, say the scientists, to discourage the practice of including a photo altogether. Companies might even consider the anonymous model used in the Belgian public sector, where CVs do not even include the candidate's name.

*Economist.com, 2012*
**Shapeshifter**

There isn't always an easy or secure way to store your helmet after a bike ride, which is why Jeff Woolf, a British inventor, has come up with the Morpher – a foldable helmet that collapses into a package small enough to fit into most bags. The Morpher’s convenience doesn't **40** its protection: its manufacturer, Strategic Sports, says the helmet exceeds most safety standards.

**Morpher helmet**
*Morpherhelmet.com, $110 (£69) plus P&P*

*Focus, 2014*
Jury Duty Information

Jurors perform a vital role in the American system of justice. The protection of our rights and liberties is largely achieved through the teamwork of judge and jury who, working together in a common effort, put into practice the principles of our great heritage of freedom. The judge determines the law to be applied in the case while the jury decides the facts. Thus, in a very important way, jurors become a part of the court itself.

Notification of Jury Duty

Persons are notified of jury duty by mail when they receive an official summons to appear for a term of court. Jurors are not recalled after service for one term of court. The summons mailing contains a map to the courthouse, information regarding parking, accommodations if an overnight stay is necessary, as well as the procedure to request a hardship excuse. In most cases there will be a questionnaire which must be completed and returned to the court within three days.

Types and Terms of Service

Petit Jurors are summoned to serve on civil and criminal jury trials held in the District Court. A civil jury consists of six to twelve members. Criminal trials require twelve jurors with a minimum of one alternate. All juries are drawn on the first day you report. If you are not selected, your jury service will be over that day. If selected, a juror serves an average of three to five days during a term of court.

Grand Jurors convene monthly for one to three days during the 12-18 month term of service. The sessions are held in secrecy to determine whether there is sufficient evidence to warrant a true bill of indictment. This is the initial stage of a criminal proceeding. The U.S. Attorney currently has five grand juries; two meet in Columbia, and one each meets in Florence, Charleston and Greenville.

Compensation

The daily attendance fee is $40.00 payable to all jurors including U.S. Postal Service employees. Full time federal government employees do not receive an attendance fee. Round trip mileage is paid at the rate indicated on the summons. A subsistence fee is paid if an overnight stay is required. The amount of the subsistence fee varies depending on location and season. Parking garage fees, if incurred, will also be reimbursed.

A check for attendance, mileage and subsistence, if any, will be mailed to your home...
address approximately three weeks after jury selection.  
A separate check will be issued if your service is required for a trial.

**Absentees**

Jurors who fail to report as directed can be ordered to appear before the court to show cause for his/her failure to comply with the summons. Any person who fails to appear pursuant to such order or who fails to show good cause for noncompliance with the summons may be fined not more than $1,000, imprisoned not more than three days, ordered to perform community service, or any combination thereof.

**Jury Areas**

The District of South Carolina is divided into three large jury areas which may require travel to a courthouse some distance from one’s home. Since all jurors are selected randomly by computer, a person may be summoned to a courthouse which is not the closest Federal Courthouse to his/her home.

**Employment Rights**

Federal jurors are protected against discharge or coercion by employers as a result of being called for jury duty. District courts have jurisdiction of these civil actions. A mechanism is provided for the appointment and compensation of counsel for jurors claiming violation by their employers and whose claims are found to have probable merit. The court will provide a certificate of service showing attendance for jurors whose employers require them.

**Reporting**

Jurors are provided with a toll-free number, 1-866-865-8152, and dialing instructions to access the status of a request for a hardship excuse or postponement as well as reporting information the day before jury selection and throughout their term of service. The recorded message gives changes regarding jury selection and disposition of civil and criminal cases prior to the trial if jury service is no longer needed.

**Dress Code**

Jury service is a serious civil responsibility. Appropriate dress is required. T-shirts, tank-tops, halter tops, shorts and flip flops are not appropriate.

*scd.uscourts.gov, 2014*