

This file contains 14 short texts drawn from a variety of sources. Students will be asked to

- Choose a text at random when entering the classroom
- Work in pairs
- One student read their text out loud to the second student
- Second student keeps track of any stumbles or errors working purely by ear without sight of the text
- The listener feeds back to the reader
- Students swap roles

As the texts are all between 200 and 300 words in length, I will be allowing 15 to 20 minutes for this exercise. Each reading will take less than 5 minutes but time is needed for the feedback.

We then discuss the need for marks to show when to take breaths, and possibly extra punctuation in longer sentences.

Students then take the texts home to read through (aloud) a few times. Next lesson, each student has the opportunity to read their text using simple sound recorders set up in the teaching room.

Playback is private using headphones!

These texts are from science news and forensic science sources. I have mixed journalistic writing with more formal examples. I hope that students will realise that the journalistic examples are easier to read having been written in short direct sentences. We shall see!

To him at least the Door in the Wall was a real door leading through a real wall to immortal realities. Of that I am now quite assured.

And it came into his life early, when he was a little fellow between five and six. I remember how, as he sat making his confession to me with a slow gravity, he reasoned and reckoned the date of it. "There was," he said, "a crimson Virginia creeper in it--all one bright uniform crimson in a clear amber sunshine against a white wall. That came into the impression somehow, though I don't clearly remember how, and there were horse-chestnut leaves upon the clean pavement outside the green door. They were blotched yellow and green, you know, not brown nor dirty, so that they must have been new fallen. I take it that means October. I look out for horse-chestnut leaves every year, and I ought to know.

"If I'm right in that, I was about five years and four months old."

He was, he said, rather a precocious little boy--he learned to talk at an abnormally early age, and he was so sane and "old-fashioned," as people say, that he was permitted an amount of initiative that most children scarcely attain by seven or eight. His mother died when he was born, and he was under the less vigilant and authoritative care of a nursery governess. His father was a stern, preoccupied lawyer, who gave him little attention, and expected great things of him. For all his brightness he found life a little grey and dull I think. And one day he wandered.

He could not recall the particular neglect that enabled him to get away, nor the course he took among the West Kensington roads. All that had faded among the incurable blurs of memory. But the white wall and the green door stood out quite distinctly.

From: *The Door in the Wall* by H. G. Wells

A unit set up to trace dangerous foreign criminals has been closed by the Home Office, despite seven remaining at large.

The Home Office endured a wave of criticism after it was revealed 1,000 foreign prisoners were not considered for deportation before release.

Of these, 74 were sex offenders or violent criminals, including rapists, killers and paedophiles.

Those not found may be dead or abroad, Home Secretary John Reid said.

Police officers had recommended that the unit be closed down rather than it being a political decision, Mr Reid said. Other efforts to ascertain the fate of the remaining criminals would continue.

Some of them, we think, may be dead or out of the country

"We have got the vast majority of them now under lock and key," he told ITV1's The Sunday Edition.

"Some of them, we think, may be dead or out of the country. I think there are about seven of them that we haven't managed to locate.

"We believe some of those seven may have left the country or may not still be alive. The resources that we put into tracing the others - about 40 or 50 of them - have now come to the end of their useful life in their present configuration."

He vehemently denied any suggestion that the efforts to find the criminals had fallen short in any way.

"I think most people recognise that we can put enormous efforts into this, but it isn't possible always to accomplish 100% of everything. I'm the home secretary, not the Wizard of Oz."

From http://news.bbc.co.uk/1/hi/uk_politics/5375932.stm,
Accessed 24th Sept 2006

Phone-tap evidence could be admitted as evidence in court as the attorney general signals a change in UK Government policy. Lord Goldsmith told The Guardian newspaper that phonetap evidence is a "key tool" that should be used.

Goldsmith, the Government's senior law officer, indicated that the current laws banning wiretap evidence could be changed in a bid to fight organised crime.

"I'm personally convinced we have to find a way of avoiding the difficulties," he said. "I do believe there are ways we can do that. Otherwise we're depriving ourselves of a key tool to prosecute serious and organised crime and terrorism".

Goldsmith is currently on a visit to the US where he has discussed the use of wire-tap evidence with the attorney general there, Alberto Gonzales. "What I'm being told here is that the admissibility of intercept evidence is critical to some of their most difficult cases," he told The Guardian. "They have put the top five mafia bosses in prison as a result of it."

Official government policy is still to maintain the ban on phone-tap evidence, and security services and police have backed the ban amidst worries that investigation techniques would become apparent via the recordings.

Prosecutors have also traditionally worried about the lifting of the ban because of the volumes of material that defendants might request. "We may need help from the legislature and the judges to avoid the agencies being swamped with irrelevant requests," said Goldsmith.

The news of Goldsmith's change of heart comes as 20 Italians, many of them police, were arrested over wire-tap evidence abuse. Phone company security chiefs and police are implicated in a case involving the gathering of surveillance on celebrities, footballers and politicians dating as far back as 1997.

From http://www.theregister.co.uk/2006/09/22/uk_attorney_general_backs_phone-tapping/

The Israeli team sprayed acacia trees in an oasis in the southern desert region of the country with a sugar solution containing the insecticide Spinosad. They chose the oasis because there were few other plants in the area from which mosquitoes could obtain their favourite tipple.

It was also home to a distinct and isolated mosquito population, so the effect could be monitored closely with only a minor risk of mosquitoes from neighbouring areas contaminating the results.

After spraying, almost the entire local population of mosquitoes was wiped out. The few mosquitoes that were trapped after spraying were thought to be newly emerging adults.

Lead researcher Professor Yosef Schlein said planting mosquito-attracting trees or bushes in suitable habitats, and spraying them with oral insecticide, could provide a relatively easy and cheap way to tackle the problem of malaria.

He said the technique had particular potential in areas of limited plant growth, such as desert and savannah regions, particularly sub-Saharan Africa, where malaria is becoming a bigger threat.

It might also have some use in areas with a greater variety of flowers, as mosquitoes are very fussy, and only visit a limited number of species.

Spinosad is an environmental "reduced-risk" oral insecticide that has little effect on other insects, birds and mammals.

Pierre Guillet, of the World Health Organization's global malaria programme, said any strategy that could effectively kill, or the reduce the life expectancy of adult female mosquitoes, had potential as a way to control the spread of malaria.

However, he said the research would have to be replicated before any firm conclusions could be drawn.

From <http://news.bbc.co.uk/1/hi/health/5370110.stm>

Archaeologists in Peru have uncovered the mummified remains of more than 40 dogs buried with blankets and food alongside their human masters.

The discovery was made during the excavation of two of the ancient Chiribaya people who lived in southern Peru between 900 and 1350 AD.

Experts say the dogs' treatment in death indicated the belief that the animals had an afterlife.

Such a status for pets has only previously been seen in ancient Egypt.

Hundreds of years before the European conquest of South America, the Chiribaya civilisation valued its dogs so highly that when one died, it was buried alongside family members.

'Distinct breed'

The dogs, which have been called Chiribaya shepherds for their llama-herding abilities, were not sacrificed as in other ancient cultures, but buried with blankets and food in human cemeteries.

Biological archaeologists have unearthed the remains of more than 40 dogs which were naturally mummified in the desert sand of Peru's southern Ilo Valley.

Now they have teamed up with Peru's Kennel Club to try to establish if the dogs represent a new distinct breed indigenous to South America.

The country is full of breeds which arrived in the last few centuries, but they believe some dogs living today in southern Peru share the characteristics of their ancestors.

From <http://news.bbc.co.uk/1/hi/world/americas/5374748.stm>

The 3.3-million-year-old fossilised remains of a human-like child have been unearthed in Ethiopia's Dikika region. The female *Australopithecus afarensis* bones are from the same species as an adult skeleton found in 1974 which was nicknamed "Lucy".

Scientists are thrilled with the find, reported in the journal *Nature*.

They believe the near-complete remains offer a remarkable opportunity to study growth and development in an important extinct human ancestor.

Juvenile *Australopithecus afarensis* remains are vanishingly rare.

The skeleton was first identified in 2000, locked inside a block of sandstone. It has taken five years of painstaking work to free the bones.

"The Dikika fossil is now revealing many secrets about *Australopithecus afarensis* and other early hominins, because the fossil evidence was not there," said dig leader Zeresenay Alemseged, of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany.

The find consists of the whole skull, the entire torso and important parts of the upper and lower limbs. CT scans reveal unerupted teeth still in the jaw, a detail that makes scientists think the individual may have been about three years old when she died.

This puts *afarensis* in a special position to play a pivotal role in the story of what we are and where we come from

Remarkably, some quite delicate bones not normally preserved in the fossilisation process are also present, such as the hyoid, or tongue, bone. The hyoid bone reflects how the voice box is built and perhaps what sounds a species can produce.

From <http://news.bbc.co.uk/1/hi/sci/tech/5363328.stm?ls>

My name is Martin Golden, and I live and work in Denver, Colorado. At the risk of sounding like an old DRAGNET rerun, I carry a badge. You see, I've been a policeman for almost thirty years. The past eighteen years, I've been assigned to the Bureau of Laboratories working as a crime scene investigator and forensic photographer. My full title is Detective, but you can call me "Marty."

Photography is a vast field and has many related fields in which a living can be made. Forensics is as much a part of photography as fashion, freelance, or architecture. In Denver, which is the twenty-fifth largest city in the country, there are about four thousand forensic photos taken each year just for the Police Department, plus about fifty thousand identification photographs. There's no end to job security!

Over the years in my career, the question I've been asked most is, "How do you become a forensic photographer?" The question should be, "How can you become a cop?" As far as the cop job goes, you must know where all the sin is, yet not partake; work odd hours--including holidays; and spend most of your days off in court. You must school yourself (usually at your own expense) and study endless hours to keep up on new developments in the field.

I've been called upon to put myself at risk by photographing riots, documenting a homicide scene in a house full of poisonous snakes, photographing an accident scene with a high-pressure fire hose aimed at me (in case the vehicle burst into flame), as well as by fighting rats for possession of a victim. Yes, I'd do it again, if it means another bad guy gets convicted on the fruits of my labor. It's well worth it.

From <http://www.apogeephoto.com/mag3-6/mag3-7fresheye.shtml>

With the recent advent of so-called 'bar-coding babies', whereby newborn babies are assigned an electronic barcode linked to their unique NHS number, personal details and medical information, how close are we to the more controversial idea of extending this scheme to include genetic screening of all babies at birth?

In its Genetics White Paper of June 2003, the Government asked the Human Genetics Commission (HGC) to work with the National Screening Committee (NSC) to consider the genetic profiling of newborns by the NHS.

The idea is that DNA samples from new babies could be used to create and store a genetic profile (whether key health-related genetic information or, in theory, a complete genome sequence) to form part of their NHS electronic patient record. This genetic reference could potentially be used to tailor treatments and direct preventative interventions as and when clinically useful knowledge about genetic influences on health emerges.

There are numerous barriers to the implementation of such a plan. Foremost among these is the current lack of clinical utility; whilst our understanding of genetic influences on health and disease is rapidly increasing, with the exception of some genetic mutations known to be associated with inherited diseases (such as cystic fibrosis) or significantly increased risk of specific disorders (such as the BRCA1/2 mutations and breast cancer), we do not yet have the ability to reliably pinpoint valid genetic markers associated with health outcomes.

From

http://www.cambridgenetwork.co.uk/POOLED/ARTICLES/BF_NEWSART/VIEW.ASP?Q=BF_NEWSART_102586

It is in this context that the UK government decided to enquire into the possibility of neonatal profiling as a potential future health-care strategy. This was based on a vision of health-care provision that would make full use of the potential of new genetic knowledge⁵, and in which all patients, and their health-care providers, would have access to an electronic record of their personal genetic profile. As a result, two bodies that advise the government of the United Kingdom on aspects of health policy, the Human Genetics Commission (HGC) and the National Screening Committee (NSC), produced a joint report in March 2005 (Ref. 6), which set out an analysis of the case for genetic profiling of babies on a population-wide basis. It was clear from the report that such a proposal raised many questions. Some of these were practical, either from a medical or technological perspective; some were financial; others were social, legal or ethical. The balance of judgement in the report was against recommending any immediate initiatives, but it acknowledged the speed of new developments in this area and recommended a return to the subject in 5 years. It considered the proposal of neonatal profiling to be feasible within a timescale of 20 years, and considered that in the long term there could be important medical benefits.

The issues raised in this report have implications not only for the United Kingdom, but for every other nation in which the genetic profiling of newborns is technically and economically feasible. Building on the issues that were raised in this report, I focus here on some important ethical, legal and social objections concerning the genetic profiling of newborns, which might ultimately be more difficult to resolve than the practical problems. The issues I tackle include those of consent, confidentiality and discrimination. To put these ethical and social issues into context, I begin by explaining the idea of profiling, and indicate the respects in which it differs from the established approaches of genetic testing and screening.

From <http://www.nature.com/nrg/journal/v7/n1/full/nrg1745.html>

Like all myths borrowed from several sources over a great length of time, the Greek stories offer many variations. Generally speaking, Orion was known as the "dweller of the mountain", and was famous for his prowess both as a hunter and as a lover. But when he boasted that he would eventually rid the earth of all the wild animals, his doom may have been sealed.

It might have been the Earth Goddess herself who sent the deadly scorpion to Orion. Or possibly Apollo, concerned that Orion had designs on his sister, Artemis. Thus Apollo may have told the Earth Goddess of Orion's boast. In any case, it seems clear that it was the Earth Goddess who sent the scorpion on its mission. Some stories have the scorpion killing Orion with its sting. However the general consensus is that he engaged the scorpion in battle but quickly realised its armour was impervious to any mortal's attack. Orion then jumped into the sea and swam toward Delos. But Apollo had witnessed Orion's struggle with the scorpion and would not let him escape so easily. He challenged his sister Artemis, who was an excellent shot, if she could hit that small black object far away in the sea, the head -- he told her -- of an infamous and treacherous villain. Artemis struck the object with her first shot. She then swam out to retrieve her victim's corpse, and discovered she had killed Orion. Artemis implored the gods to restore his life, but Zeus objected. So she put Orion's image in the heavens.

In his eternal hunting, Orion is careful to keep well ahead of the scorpion. In fact Orion has disappeared over the horizon by the time Scorpio rises in the east, as it becomes his turn to rule the evening sky.

From http://www.dibonsmith.com/ori_con.htm

Andromeda was the daughter of Cepheus and Cassiopeia. Mother thought she and daughter were more beautiful than any of Poseidon's many nymphs, and she taunted the God of the Seas until he just couldn't take it any longer. Poseidon punished the vane mother by chaining her daughter naked to a rock, to be sacrificed to a dreadful sea monster.

Some writers identify this monster with Cetus, another constellation. But I can find no reference in the classical texts that directly name the monster as Cetus. (In fact the very name means "whale", hardly a dreadful sea monster.)

Perseus, fresh from slaying the Gorgon Medusa, was passing by. Attracted by Andromeda's beauty, and no doubt the generally heroic opportunities the situation offered, he agreed to rescue her. But only if he could marry Andromeda afterwards.

Cepheus and Cassiopeia were not anxious for their daughter to wed Perseus, but they had little choice, so agreed. Perseus skimmed over the water, thus confusing the monster, and then cut off the monster's head. The wedding followed soon afterwards.

At the wedding relatives disrupted the proceedings, probably at Cassiopeia's insistence. In the following melee both Cassiopeia and Cepheus lost their life. Poseidon put them both in the heavens (well, it was the least he could do...).

Much later Athene put Andromeda in the same region of the sky, between mother and father.

The asterism consists of the brightest star, Alpheratz (or Sirrah) denoting Andromeda's head, and the rest of the principal stars marking other parts of the young woman's body. But I like to think that the other stars in fact trace Andromeda's flowing hair, and I've drawn the constellation to reflect that idea.

From http://www.dibonsmith.com/and_con.htm

I chose this course because it was different and interesting and had a lot of hands-on aspects compared to other science degrees. I also really enjoyed the Patricia Cornwell novels, which were related to this kind of science, when I was still at school.

For my honours research project I studied and ran experiments involving the transfer of fibres on clothing when they were washed. I found results showing that in most cases if a fibre was on a piece of clothing and was washed it would usually stay on the piece of clothing, but could possibly change its position on the clothing. I used several types and brands of washing machine and used different pieces of clothing and found that results were the same. My project helped the police force by adding another type of evidence that could be used in solving crimes.

At the moment I am pursuing a PhD at UTS in Forensic Science. I am studying and experimenting with the effect on certain fibres when exposed to the different elements, e.g. when fibres of clothing are submerged in water or soil, etc. the time it takes for decomposition and other effects to occur to the fibres.

Make sure your interested in this area of science and if you really want to do it, don't let people discourage you because it is a great course. I recommend doing chemistry at school, but there are bridging courses at UTS, because there is a fair bit of chemistry involved and it helps to already know the basics.

From <http://www.science.uts.edu.au/careers/rebeccawatt.html>

This study reports the persistence behaviour of human scalp hairs under a number of different circumstances. The effects of artificial dyeing of hairs, the presence or absence of roots and different types of fabrics on the persistence of hair on a variety of garments were investigated. The garments were made from cotton, polycotton, cotton/acrylic, polyester and wool. The results indicated that neither artificial dyes nor the presence or absence of roots had statistically significant effects on the persistence of hair. In contrast, the type of fabric had a major impact and it was found that, generally, hairs persist longer on rougher fabrics. The rate of loss of hairs from non-woollen fabrics during normal wear was found to follow an exponential decay curve. In contrast, the rate of loss from the woollen garments was quite linear, indicating a constant, even loss, and thus suggests that a different process is involved in the persistence of hairs on woollen garments from that on non-woollen garments. The speed at which hair was lost from fabrics decreased in the order polyester, cotton/acrylic, polycotton, cotton, smooth wool, rough wool, so that wool gives the best chance of recovering samples of hair. Due to the uniqueness of each case, it is advised that caution be used when making any interpretations and before drawing any conclusions.

From

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=14642716&dopt=Abstract

The examination of human hairs in the forensic laboratory is typically conducted through the use of light microscopy. This examination routinely involves a two-step process—the identification of questioned hairs and the comparison of questioned and known hairs. The purpose for conducting this examination is to ascertain whether two or more individuals could have come into contact or whether one or more individuals could have come into contact with an object. This associative evidence is particularly useful in crimes of violence, such as homicide, sexual assault, and aggravated assault, where physical contact may have occurred. Crimes such as burglary and armed robbery typically involve the recovery of debris and articles of clothing which may contain hairs useful for the identification of suspects.

The value of hair evidence is related to the variability of hair characteristics between individuals in the population, which can be visualized through the use of comparison microscopy. There are many factors that impact on the reliability of a hair association, including experience, training, suitability of known hair standards, and adequacy of equipment. Although hair evidence is a valuable tool in human identification, it is difficult to establish a statistical probability for a particular association due in part to the lack of reliable quantitative assessments of the microscopic characteristics present in hairs.

The comparison microscope consists of two compound light microscopes connected by an optical bridge that allows for the simultaneous viewing of questioned hairs and known hairs. Typically, a glass microscope slide containing known or reference hairs is positioned on the stage of one microscope, and a glass microscope slide containing a questioned hair or hairs is positioned on the stage of the other microscope. This enables the hair examiner to compare the microscopic characteristics of the known and questioned hairs in one field. The range of magnification used is approximately 40X to 400X.

From <http://www.fbi.gov/hq/lab/fsc/backissu/july2000/deedric1.htm>