Reading 6 HW

PASSAGE 1

Lost for words

In the Native American Navajo nation, which sprawls across four states in the American south-west, the native language is dying. Most of its speakers are middle-aged or elderly Although many students take classes in Navajo, the schools are run in English. Street signs, supermarket goods and even their own newspaper are all in English. Not surprisingly, linguists doubt that any native speakers of Navajo will remain in a hundred years' time. Navajo is far from alone. Half the world's 6,800 languages are likely to vanish within two generations – that's one language lost every ten days. Never before has the planet's linguistic diversity shrunk at such a pace. At the moment, we are heading for about three or four languages dominating the world,' says Mark Pagel, an evolutionary biologist at the University of Reading. 'It's a mass extinction, and whether we will ever rebound from the loss is difficult to know.'

Isolation breeds linguistic diversity: as a result, the world is peppered with languages spoken by only a few people. Only 250 languages have more than a million speakers, and at least 3,000 have fewer than 2,500. It is not necessarily these small languages that are about to disappear. Navajo is considered endangered despite having 150,000 speakers. What makes a language endangered is not just the number of speakers, but how old they are. If it is spoken by children it is relatively safe. The critically endangered languages are those that are only spoken by the elderly, according to Michael Krauss, director of the Alassk Native Language Center, in Fairbanks.

Why do people reject the language of their parents? It begins with a crisis of confidence, when a small community finds itself alongside a larger, wealthier society, says Nicholas Ostler, of Britain's Foundation for Endangered Languages, in Bath. 'People lose faith in their culture,' he says. 'When the next generation reaches their teens, they might not want to be induced into the old traditions.'

The change is not always voluntary. Quite often, governments try to kill off a minority language by banning its use in public or discouraging its use in schools, all to promote national unity.

The former US policy of running Indian reservation schools in English, for example, effectively put languages such as Navajo on the danger list. But Salikoko Mufwene, who chairs the Linguistics department at the University of Chicago, argues that the deadliest weapon is not government policy but Economic globalisation. 'Native Americans have not lost pride in their language, but they have had to adapt to socio-economic pressures,' he says. 'They cannot refuse to speak English if most commercial activity is in English.' But are

LIVEWORKSHEETS

languages worth saving? At the very least, there is a loss of data for the study of languages and their evolution, which relies on comparisons between languages, both living and dead. When an unwritten and unrecorded language disappears, it is lost to science.

Language is also intimately bound up with culture, so it may be difficult to preserve one without the other. 'If a person shifts from Navajo to English, they lose something,' Mufwene says. 'Moreover, the loss of diversity may also deprive us of different ways of looking at the world,' says Pagel. There is mounting evidence that learning a language produces physiological changes in the brain. 'Your brain and mine are different from the brain of someone who speaks French, for instance,' Pagel says, and this could affect our thoughts and perceptions. 'The patterns and connections we make among various concepts may be structured by the linguistic habits of our community.'

So despite linguists' best efforts, many languages will disappear over the next century. But a growing interest in cultural identity may prevent the direst predictions from coming true. 'The key to fostering diversity is for people to learn their ancestral tongue, as well as the dominant language,' says Doug Whalen, founder and president of the Endangered Language Fund in New Haven, Connecticut. 'Most of these languages will not survive without a large degree of bilingualism,' he says. In New Zealand, classes for children have slowed the erosion of Maori and rekindled interest in the language. A similar approach in Hawaii has produced about 8,000 new speakers of Polynesian languages in the past few years. In California, 'apprentice' programmes have provided life support to several indigenous languages. Volunteer 'apprentices' pair up with one of the last living speakers of a Native American tongue to learn a traditional skill such as basket weaving, with instruction exclusively in the endangered language. After about 300 hours of training they are generally sufficiently fluent to transmit the language to the next generation. But says that preventing a language dying out is not the same as giving it new life by using it every day. 'Preserving a language is more like preserving fruits in a jar,' he says.

However, preservation can bring a language back from the dead. There are examples of languages that have survived in written form and then been revived by later generations. But a written form is essential for this, so the mere possibility of revival has led many speakers of endangered languages to develop systems of writing where none existed before.

Questions 1–4

Complete the summary below with ***NO MORE THAN TWO WORDS*** *from the passage for each answer.*

There are currently approximately 6,800 languages in the world. This great variety of languages came about largely as a result of geographical **1**..... . But in today's world, factors such as government initiatives and **2**..... pressures are contributing to a huge decrease in the number of languages. One factor which may help to ensure that

LIVEWORKSHEETS

some endangered languages do not die out completely is people's increasing appreciation of their **3**..... . This has been encouraged through programmes of language classes for children and through 'apprentice' schemes, in which the endangered language is used as the medium of instruction to teach people a **4**..... . Some speakers of endangered languages have even produced writing systems in order to help secure the survival of their mother tongue.

Questions 5–9

Look at the following statements (***Questions 5–9***) and the list of people in the box below.
*Match each statement with the correct person **A–E**.*
***NB** You may use any letter more than once.*

A Michael Krauss
B Salikoko Mufwene
C Nicholas Ostler
D Mark Pagel
E Doug Whalen

5 Endangered languages cannot be saved unless people learn to speak more than one language.
6 Saving languages from extinction is not in itself a satisfactory goal.
7 The way we think may be determined by our language.
8 Young people often reject the established way of life in their community.
9 A change of language may mean a loss of traditional culture.

Questions 10–13

*Are the following statements **YES**, **NO** or **NOT GIVEN**?*

10 The Navajo language will die out because it currently has too few speakers.
11 A large number of native speakers fails to guarantee the survival of a language.
12 National governments could do more to protect endangered languages.
13 The loss of linguistic diversity is inevitable.

LIVEWORKSHEETS

POST-TEST EXERCISE

1. Complete the keyword table.

Keyword in questions	Similar words in the passage
variety of languages came about largely as a result of … isolation	
economic globalisation are contributing to a huge **decrease in the number of languages**	
One factor … help to ensure … some languages do not die out completely is **people's increasing appreciation of** their cultural identity	
endangered language is **used as the medium of instruction**	
endangered languages cannot be saved *unless* people learn to speak **more than one language**	
saving languages from **extinction**	
the way we think may **be determined by** our language.	
young people often **reject** the established way of life in their community.	
a change of language may mean a loss of traditional culture	
The Navajo language will **die out** because it currently has too few speakers A large number of native speakers fails to guarantee the survival of a language	
The **loss of linguistic diversity** is **inevitable**	

LIVEWORKSHEETS

2. Translate the following words into English.

1. linguistic diversity (n) .....
2. evolutionary (v) .....
3. revival (n) .....
4. rebound (v) .....
5. erosion (n) .....
6. induce (v) .....
7. bilingualism (n) .....
8. deprive (v) .....
9. exclusively (adv) .....
10. foster (v) .....

LIVEWORKSHEETS

PASSAGE 2

Play is a serious business

Does play help develop bigger, better brains?
Bryant Furlow investigates

A

Playing is a serious business. Children engrossed in a make-believe world, fox cubs play-fighting or kittens teasing a ball of string aren't just having fun. Play may look like a carefree and exuberant way to pass the time before the hard work of adulthood comes along, but there's much more to it than that. For a start, play can even cost animals their lives. Eighty per cent of deaths among juvenile fur seals occur because playing pups fail to spot predators approaching. It is also extremely expensive in terms of energy. Playful young animals use around two or three per cent of their energy cavorting, and in children that figure can be closer to fifteen per cent. 'Even two or three per cent is huge,' says John Byers of Idaho University. 'You just don't find animals wasting energy like that,' he adds. There must be a reason.

B

But if play is not simply a developmental hiccup, as biologists once thought, why did it evolve? The latest idea suggests that play has evolved to build big brains. In other words, playing makes you intelligent. Playfulness, it seems, is common only among mammals, although a few of the larger-brained birds also indulge. Animals at play often use unique signs – tail-wagging in dogs, for example – to indicate that activity superficially resembling adult behaviour is not really in earnest. A popular explanation of play has been that it helps juveniles develop the skills they will need to hunt, mate and socialise as adults. Another has been that it allows young animals to get in shape for adult life by improving their respiratory endurance. Both these ideas have been questioned in recent years.

C

Take the exercise theory. If play evolved to build muscle or as a kind of endurance training, then you would expect to see permanent benefits. But Byers points out that the benefits of increased exercise disappear rapidly after training stops, so any improvement in endurance resulting from juvenile play would be lost by adulthood. 'If the function of play was to get into shape,' says Byers, 'the optimum time for playing would depend on when it was most advantageous for the young of a particular species to do so. But it doesn't work like that.' Across species, play tends to peak about halfway through the suckling stage and then decline.

D

Then there's the skills-training hypothesis. At first glance, playing animals do appear to be practising the complex manoeuvres they will need in adulthood. But a closer inspection reveals this interpretation as too simplistic. In one study, behavioural ecologist Tim Caro,

LIVEWORKSHEETS

from the University of California, looked at the predatory play of kittens and their predatory behaviour when they reached adulthood. He found that the way the cats played had no significant effect on their hunting prowess in later life.

E

Earlier this year, Sergio Pellis of Lethbridge University, Canada, reported that there is a strong positive link between brain size and playfulness among mammals in general. Comparing measurements for fifteen orders of mammal, he and his team found larger brains (for a given body size) are linked to greater playfulness. The converse was also found to be true. Robert Barton of Durham University believes that, because large brains are more sensitive to developmental stimuli than smaller brains, they require more play to help mould them for adulthood. 'I concluded it's to do with learning, and with the importance of environmental data to the brain during development,' he says.

F

According to Byers, the timing of the playful stage in young animals provides an important clue to what's going on. If you plot the amount of time a juvenile devotes to play each day over the course of its development, you discover a pattern typically associated with a 'sensitive period' – a brief development window during which the brain can actually be modified in ways that are not possible earlier or later in life. Think of the relative ease with which young children – but not infants or adults – absorb language. Other researchers have found that play in cats, rats and mice is at its most intense just as this 'window of opportunity' reaches its peak.

G

'People have not paid enough attention to the amount of the brain activated by play,' says Marc Bekoff from Colorado University. Bekoff studied coyote pups at play and found that the kind of behaviour involved was markedly more variable and unpredictable than that of adults. Such behaviour activates many different parts of the brain, he reasons. likens it to a behavioural kaleidoscope, with animals at play jumping rapidly between activities. 'They use behaviour from a lot of different contexts – predation, aggression, reproduction,' he says. 'Their developing brain is getting all sorts of stimulation.'

H

Not only is more of the brain involved in play than was suspected, but it also seems to activate higher cognitive processes. 'There's enormous cognitive involvement in play,' says Bekoff. He points out that play often involves complex assessments of playmates, ideas of reciprocity and the use of specialised signals and rules. He believes that play creates a brain that has greater behavioural flexibility and improved potential for learning later in life. The idea is backed up by the work of Stephen Siviy of Gettysburg College. studied how bouts of play affected the brain's levels of a particular chemical associated with the stimulation and growth of nerve cells. He was surprised by the extent of the activation. 'Play

LIVEWORKSHEETS

just lights everything up,' he says. By allowing link-ups between brain areas that might not normally communicate with each other, play may enhance creativity.

I

What might further experimentation suggest about the way children are raised in many societies today? We already know that rat pups denied the chance to play grow smaller brain components and fail to develop the ability to apply social rules when they interact with their peers. With schooling beginning earlier and becoming increasingly exam-orientated, play is likely to get even less of a look-in. Who knows what the result of that will be?

Questions 1–6

Which paragraph contains the following information?

***NB** You may use any letter more than once.*

1 the way play causes unusual connections in the brain which are beneficial
2 insights from recording how much time young animals spend playing
3 a description of the physical hazards that can accompany play
4 a description of the mental activities which are exercised and developed during play
5 the possible effects that a reduction in play opportunities will have on humans
6 the classes of animals for which play is important

Questions 7–9

*Choose **THREE** letters **A–F**.*

The list below gives some ways of regarding play.

Which **THREE** ways are mentioned by the writer of the text?

A a rehearsal for later adult activities
B a method animals use to prove themselves to their peer group
C an activity intended to build up strength for adulthood
D a means of communicating feelings
E a defensive strategy
F an activity assisting organ growth

LIVEWORKSHEETS

Questions 10–14

*Look at the following researchers (**Questions 10–14**) and the list of findings below. Match each researcher with the correct finding.*

List of Findings

A There is a link between a specific substance in the brain and playing.
B Play provides input concerning physical surroundings.
C Varieties of play can be matched to different stages of evolutionary history.
D There is a tendency for mammals with smaller brains to play less.
E Play is not a form of fitness training for the future.
F Some species of larger-brained birds engage in play.
G A wide range of activities are combined during play.
H Play is a method of teaching survival techniques.

List of Researchers

10 Robert Barton
11 Marc Bekoff
12 John Byers
13 Sergio Pellis
14 Stephen Siviy

LIVEWORKSHEETS

POST-TEST EXERCISE

1. Complete the keyword table.

Keyword in questions	**Similar words in the passage**
the way play *causes* **unusual connections** in the brain which are beneficial	
insights from *recording how much time* **young animals SPEND playing**	
a description of the *physical hazards* that can accompany play	
mental activities … are exercised and developed during play	
the *possible effects* that **a reduction in play opportunities** will have on humans	
the classes of animals for which play is important	
a rehearsal for **later adult activities**	
an activity intended to **build up strength** for adulthood	
an activity assisting organ growth	
Play provides **input concerning physical surroundings**	
A wide range of activities are combined during play	
Play is not **a form of fitness training** for the future	
There is a tendency for mammals with smaller brains to play less	
There is a **link** between a specific substance in the brain and playing	

LIVEWORKSHEETS

2. Translate the following words into English.

1. exuberant (adj) .....
2. predator (n) .....
3. indulge (v) .....
4. resemble (v) .....
5. respiratory (adj) .....
6. endurance (n) .....
7. hypothesis (n) .....
8. interpretation (n) .....
9. prowess (n) .....
10. cognitive (ad) .....

LIVEWORKSHEETS