UNIVERSITE PIERRE MENDES FRANCE - UFR SHS

Anglais - L3 Psychologie & Sociologie

2ème session - juin 2007

Documents autorisés : Aucun
Durée de l'épreuve : 2 heures 30

Instructions :

- *Détachez l'exemplaire du texte et la feuille de réponses afin de pouvoir travailler plus facilement.*
- *Complétez très lisiblement l'en-tête de la feuille de réponses.*
- *Faites tous les exercices directement sur la feuille de réponses.*
- *Ecrivez impérativement à l'encre (et non au crayon à papier) SVP.*

Text: The brain laid bare *Guardian Weekly* February 23 March 2007

I- GLOBAL COMPREHENSION

A- Headline

Translate the headline « The brain laid bare » *into French. If you do not know the words, give the most plausible equivalent headline.*

B – Titles

Which paragraphs in the article do the following titles correspond to?
The titles follow the chronological order of the article.

1- Breakthroughs in brain-reading thanks to brain imaging.
2- The necessity of urgent ethical debate due to the rapid progress of these techniques.
3- Description of the study: method, results, and discussion.
4- Further positive applications of these techniques and the necessity to remain cautious concerning ethical implications.

II- DETAILED COMPREHENSION

A- Vocabulary

In the text, find synonyms for the following words (they are in the chronological order of the text):

1- to search into
2- very quick
3- leading, bringing
4- initiate
5- announced, passed
6- shocked, taken aback
7- obligatory
8- inventing
9- be too excited
10- considering carefully

B- Referents

What do the following words refer to in the text? Quote only what is necessary.

1- they (§1, l.4)
2- there (§3, l.4)
3- It (§3, l.4)
4- who (§3, l.8)
5- this (§7, l.4)
6- it (§7, l.6)
7- they (§8, l.4)
8- it (§9, l.8)
9- it (§10, l.8)
10- that (§11,l.10)

C – Right / Wrong

On your answer sheet, circle 'R' if you think that the sentence is correct or 'W' if you think it is incorrect. Write the number of the paragraph which helped you to make a choice between R and W. (Be careful: if you do not mention the paragraph, the answer will not be validated).

1- Scientists now manage to translate physical images of the brain into contents of intention.
2- The author believes that the situations described in *Minority Report* are and will remain fictitious.
3- According to Prof Haynes, brain-scanning is dangerous because even people who do not intend to commit crimes will not be able to prove their innocence.
4- Scientists now need to find a method for associating brain activity signatures and contents of thoughts.
5- The only really useful applications of brain-reading are those for disabled people.

D- Syntax

In the following sentences, circle the conjugated verbs, underline the subjects and link them with an arrow to their respective subjects.

1- Using the scanner, we could look around the brain for this information and read out something that from the outside there's no way you could possibly tell is in there.

2- Being able to read thoughts as they arise could lead to computers that allow people to operate email and the internet using thought alone and write with word processors that predict which word or sentence you want to type.

III- COMPREHENSION TECHNIQUES AND GRAMMAR

A- Lexicology

Give the name(s) (in French) of the word formation model(s) which correspond(s) to the following words taken from the text.

1) brain-reading (§8, l.8) 2) marble-sized (§9, l.2) 3) prefrontal (§9, l.3)
4) neuroscientist (§10, l.1) 5) email (§11, l.5) 6) internet (§11, l.5)

B – Quantifiers

Translate into French

(...) in the next few years (§6, l.6)

C- Link words

Translate into French (do not use "comme" to translate "as")

Being able to read thoughts as they arise... (§11, l.4)

D – Passive voice

On your answer sheet, put the following sentences into the active voice: you must provide relevant subjects (Be careful: two different subjects are needed in the second sentence.)

1) Brain imaging has been used to identify tell-tale activity linked to lying, violent behaviour and racial prejudice. (§4)

2) If brain-reading can be refined, it could quickly be adopted to assist interrogations of criminals and terrorists. (§5)

IV- PHONETICS

A- Stress patterns

On your answer sheet, circle the number corresponding to the stressed syllable in the following words.

1) developed 2) controversial 3) ethical
4) volunteers 5) differences 6) desirable

B- Phonetic transcriptions

On your answer sheet, write the words corresponding to the following phonetic transcriptions.

1- ['ɹaɪnɪŋ] 2- [tɔːtʃ] 3- ['sʌtəl]
4- [haʊl] 5- [ɪmz]

V- ESSAY

Write 150 words (+ or – 10 words) on <u>one</u> of the following subjects.
"Re-reading" mistakes will be penalised <u>heavily</u> (-2 pts per mistake).
Clearly write which essay you have chosen <u>and</u> how many words you have written for the essay.

<u>Topics</u>

1- Re-read §10 carefully and, using your knowledge of psychology or sociology, explain the following: "because it will help with diagnosis, education and so on" (l.9)

2-Re-read §10 carefully and, using your knowledge of psychology or sociology, explain the following: "but we need to be thinking the ethical issues through" (l.10-11)

3- Which applications of the techniques mentioned in this article are presented in Spielberg's *Minority Report*? Ultimately, what is Spielberg's position concerning these techniques?

Science & Technology

The brain laid bare

Ian Sample on the ethics of a scan that can read people's intentions

A team of leading neuroscientists has developed a technique that allows them to look deep inside people's brains and read their intentions before they act. The research breaks controversial ground in scientists' ability to probe people's minds and eavesdrop on their thoughts and raises serious ethical issues over how brain-reading technology may be used in the future.

The team used high-resolution brain scans to identify patterns of activity before translating them into meaningful thoughts, revealing what a person planned to do in the near future. It is the first time scientists have succeeded in reading intentions in this way.

"Using the scanner, we could look around the brain for this information and read out something that from the outside there's no way you could possibly tell is in there. It's like shining a torch around, looking for writing on a wall," said John-Dylan Haynes at the Max Planck Institute for Human Cognitive and Brain Sciences in Germany, who led the study with colleagues at University College London and Oxford University in the UK.

The research builds on a series of recent studies in which brain imaging has been used to identify tell-tale activity linked to lying, violent behaviour and racial prejudice.

The work reveals the dramatic pace at which neuroscience is progressing, prompting the researchers to call for an urgent debate into the ethical issues surrounding future uses for the technology. If brain-reading can be refined, it could quickly be adopted to assist interrogations of criminals and terrorists. It might even usher in a *Minority Report* era (as portrayed in the Steven Spielberg science fiction film of that name) in which judgments are handed down before the law is broken, on the strength of an incriminating brain scan.

"These techniques are emerging and we need an ethical debate about the implications, so that one day we're not surprised and overwhelmed and caught on the wrong foot by what they can do. These things are going to come to us in the next few years and we should really be prepared," Professor Haynes said.

The use of brain scanners to judge whether people are likely to commit crimes is an issue that society should tackle now, according to Prof Haynes. "We see the danger that this might become compulsory one day, but we have to be aware that if we prohibit it, we are also denying people who aren't going to commit any crime the possibility of proving their innocence."

During the study the researchers asked volunteers to decide whether to add or subtract two numbers they were later shown on a screen. Before the numbers flashed up, they were given a brain scan using functional magnetic imaging resonance. The researchers then used a software that had been designed to spot subtle differences in brain activity to predict the person's intentions with 70% accuracy.

The study revealed signatures of activity in a marble-sized part of the brain called the medial prefrontal cortex that changed when a person intended to add the numbers or subtract them. Because brains differ so much, the scientists need a good idea of what a person's brain activity looks like when he or she is thinking something to be able to spot it in a scan, but researchers are already devising ways of deducing what patterns are associated with different thoughts.

Prof Colin Blakemore, a neuroscientist and the director of the British Medical Research Council, said: "We shouldn't go overboard about the power of these techniques at the moment . . . but we will have more and more ability to probe people's intentions, minds, background thoughts, hopes and emotions. Some of that is extremely desirable, because it will help with diagnosis, education and so on, but we need to be thinking the ethical issues through. It adds a whole new gloss to personal medical data and how it might be used."

The technology could also drive advances in brain-controlled computers and machinery to aid disabled people. Being able to read thoughts as they arise could lead to computers that allow people to operate email and the internet using thought alone and write with word processors that predict which word or sentence you want to type. The technology is also expected to lead to improvements in thought-controlled wheelchairs and artificial limbs that respond when a person imagines moving.

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ANSWER SHEET

Numéro d'identification : .....

Numéro d'étudiant : .....

NOTE = **/ 200 =** **/20** **Correcteur:**

I - GLOBAL COMPREHENSION /13

A- Headline /5

The brain laid bare =

B- Titles /8

1	§	2	§	3	§	4	§

II- DETAILED COMPREHENSION /93

A- Vocabulary /30

N°	Word/expression	§
1		
2		
3		
4		
5		

N°	Word/expression	§
6		
7		
8		
9		
10		

B- Referents /30

1	they (§1, l.4)	
2	there (§3, l.4)	
3	It (§3, l.4)	
4	who (§3, l.8)	
5	this (§7, l.4)	
6	it (§7, l.6)	

Numéro d'identification : .....

Numéro d'étudiant : .....

IV- PHONETICS /22

A- Stress patterns /12

1	developed	1	2	3	
2	controversial	1	2	3	4
3	ethical	1	2	3	
4	volunteers	1	2	3	
5	differences	1	2	3	
6	desirable	1	2	3	4

B- Phonetic transcriptions /10

1	['ʃaɪnɪŋ]	
2	[tɔ:tʃ]	
3	['sʌtəl]	
4	[haʊl]	
5	[ɪmz]	

V- ESSAY /40

English rereading rules

1) **-s** for the **present simple, third person singular**.
2) **A modal verb** must be **followed by the infinitive** (without **to**), **never by another modal.**
3) **Adjectives are invariable** (no -s at the end). Be careful with **other/s !!**
4) **Adjectives** must be put **before the head noun**.
5) **Be careful with nominalised adjectives : no –s.**
6) Make sure **personal, relative and interrogative pronouns** are appropriate **(referents!)**
7) **Word order : do not separate the verb from its object**. Ex : I **like children** very much.
8) **No accents** in English! Ever!!
9) **Capital letters**: beginning of sentences, proper nouns, adjectives/nouns of nationality or languages
10) **Punctuation** : full stop at the end of sentences, question mark at the end of questions, fewer commas than in French.
11) **People** + verb in the **plural** Ex/ : All the people here are over 21.
12) To agree with someone/ thing (💣**Never**: to be agree with💣).
13) Translation of **il y a** : singular (there is/ there was), plural (there are/ there were) ≠ temporal (ago)
14) **Information, advice, research, ...** are **uncountable** nouns.
15) Translation of **pour** : **to** (in order to) + verb (aim, purpose) , **for** + noun (beneficiary).
16) Never begin a sentence with the coordinating conjunctions **and, but** or **so.**
17) **Which** ≠ witch ≠ wish

P.T.O.

6 58

150-word essay

Topic =
Number of words =

Contents	**/20**
Language	**/20**
Re-reading mistakes	**-**
Mark	**/40**

7 59

7	they (§8, l.4)	
8	it (§9, l.8)	
9	it (§10, l.8)	
10	That (§11, 10)	

C- Right or Wrong /15

N°	R ou W	§
1	R W	
2	R W	
3	R W	

N°	R ou W	§
4	R W	
5	R W	

D- Syntax /18

1- Using the scanner, we could look around the brain for this information and read out something that from the outside there's no way you could possibly tell is in there.

2- Being able to read thoughts as they arise could lead to computers that allow people to operate email and the internet using thought alone and write with word processors that predict which word or sentence you want to type.

III- COMPREHENSION TECHNIQUES /32

A- Lexicology /12

1	brain-reading (§8, l.8)		4	neuroscientist (§10, l.1)	
2	marble-sized (§9, l.2)		5	email (§11, l.5)	
3	prefrontal (§9, l.3)		6	internet (§11, l.5)	

B- Quantifiers / 5

in the next few years (§6, l.6) =

C- Link words /5

Being able to read thoughts as they arise… (§11, l.4) =

D – Passive voice /10

1	
2	

5/60