

Aphasia

reading comprehension

Different types of aphasia	Symptoms	Anatomical damage (s)
Receptive aphasia		
Expressive aphasia		

Different types of aphasia	Symptoms	Anatomical damage (s)
Receptive aphasia	<p>Great difficulty comprehending speech. Use of paraphasias or neologisms.</p> <p>Apparently fluent language but in fact "word salad"</p>	<p>Damage to the posterior region of the first temporal gyrus called "Wernicke's area"</p>
Expressive aphasia	<p>Absence of small grammatical parts of speech and of proper inflection. Telegraphic or agrammatical speech</p>	<p>Damage to the frontal regions of the LH called "Broca's area"</p>

Different types of aphasia	Symptoms	Anatomical damage (s)
Transcortical aphasia Conduction aphasia		
Anomic aphasia		

Different types of aphasia	Symptoms	Anatomical damage (s)
<p>Transcortical aphasia</p> <p>Conduction aphasia</p>	<p>Various degrees of comprehension and spontaneous speech problems</p> <p>Echolalia, in extreme cases</p>	<p>Damage to the neural tract called the arcuate fasciculus connecting Broca's and Wernicke's areas.</p>
<p>Anomic aphasia</p>	<p>Difficulty in naming objects</p>	<p>Damaged limited to the cortical area called the angular gyrus (situated at the junction of the parietal, occipital and temporal lobes)</p>

Different types of aphasia	Symptoms	Anatomical damage (s)
Word deafness		
Global aphasia		

Different types of aphasia	Symptoms	Anatomical damage (s)
Word deafness	Comprehension is impaired for spoken language only, the ability to hear sounds is in general not affected	Lesion disconnecting Wernicke's area from auditory inputs (Herschl's gyrus)
Global aphasia	severe impairment of all language related functions	A widespread damage to the LH

Find the role of the right hemisphere in language for normal subjects

The role of the RH in language for normal subjects can be deduced from observations of brain-damaged patients (aphasic patients i.e. Left brain-damaged, and aprosodic patients, i.e. right brain damaged).

RH is involved in the processing of emotional prosody (both at a perceptive and at a productive level).

RH is involved in the processing of metaphors, puns, affective lexia, figurative meanings of words.

III. Decide if these statements are true or false or if there is no information in the text

1. Left brain damaged patients will never speak anymore
2. Right-brain damaged patients present no speech impairment
3. Ross has proven that right lesions impaired prosody in the same way left lesions impaired syntax and semantic
4. It is only in case of aphasia that the right hemisphere is involved in language
5. When the left hemisphere is anaesthetised, normal subjects present an interruption of speech
6. Even if there is enough amount of blood in some intact areas of brain-damaged patients, fIRM has shown that these areas were less functional
7. It can be said that the right hemisphere takes on language functions in case of a left brain damage
8. Left brain damaged patients cannot understand puns

III. Decide if these statements are true or false or if there is no information in the text

1. Left brain damaged patients will never speak anymore (F *(MIT at the end of the text)*)
2. Right-brain damaged patients present no speech impairment (F *(no intonation, literal interpretations of words, metaphors, etc. end page 2)*)
3. Ross has proven that right lesions impaired prosody in the same way left lesions impaired syntax and semantic (F *(has not been proven, it remains controversial, Ross claimed)*)
4. It is only in case of aphasia that the right hemisphere is involved in language (F *RH is involved in language in normal subjects, cf Wada's test*)
5. When the left hemisphere is anaesthetised, normal subjects present an interruption of speech (Yes but NI)
6. Even if there is enough amount of blood in some intact areas of brain-damaged patients, fIRM has shown that these areas were less functional (T) *T the diaschisis phenomenon*
7. It can be said that the right hemisphere takes on language functions in case of a left brain damage T *(Wada's test on LH patients)*
8. Left brain damaged patients cannot understand puns (F but NI) *RH patients cannot*

IV. Melodic intonation therapy: Complete the text below with the appropriate words

The melodic intonation therapy is based on the involvement in the processing of This therapy has been proved with who can speech but cannot anymore. First of all, sentences are, then the melody is After a while, patients can without Some patients who anymore were able to produce after a while.

IV. Melodic intonation therapy: Complete the text below with the appropriate words

The melodic intonation therapy is based on the **RH** involvement in the processing of **prosody**. This therapy has been proved **successful** with **Broca's aphasics** who can **understand** speech but cannot **produce it** anymore. First of all, sentences are **sung**, then the melody is **removed/ de emphasised**. After a while, patients can **speak** without **singing**. Some patients who **could not speak** anymore were able to produce **some meaningful sentences** after a while.

Listening comprehension

I. Watch the whole report once and underline the most appropriate title

Aphasic patients

Language disorders

Wernicke's aphasia: a case report

Broca's aphasia: a case report

A new therapy for aphasic patients

Listening comprehension

I. Watch the whole report once and underline the most appropriate title

Aphasic patients

Language disorders

Wernicke's aphasia: a case report

Broca's aphasia: a case report

A new therapy for aphasic patients

Listening comprehension

II. Watch the first part of the report and decide if these statements are true or false. Correct any false statements

Our language abilities have allowed us to take a great leap forward from the Stone Age to our modern civilisation

Chimpanzees do not speak because they do not possess Broca's and Wernicke's areas

It was thought that Broca's area was involved in word selection T / F

Listening comprehension

II. Watch the first part of the report and decide if these statements are true or false. Correct any false statements

Our language abilities have allowed us to take a great leap forward from the Stone Age to our modern civilisation T / F

Chimpanzees do not speak because they do not possess Broca's and Wernicke's areas

T / F *(no information, but at first it is an anatomical problem: chimpanzees do not have an elongated pharynx)*

It was thought that Broca's area was involved in word selection T / F
Broca's area controls the last stage of generating the speech sounds

Listening comprehension

III. Dr Talley's case history: Watch the second part of the report and fill in the table below

Dr Talley's job

Scientific adviser to the American government

What happened to him? When?

He suffered a stroke in March 1998

Where was he when he was taken ill?

New York

Where did he go? How?

San Francisco, took a taxi to go to the airport, then he flew to San Francisco and went to hospital

What about the symptoms?

Paralysed on the right side of his body, inability to speak, inability to read, difficulty understanding language

How is he one year later?

Can drive, fluent but his production is no longer coherent, meaningless (wrong words –paraphasias- syntax is impaired)

Anatomical problem

A haemorrhage has destroyed large parts of Wilson's left hemisphere, including the whole of Wernicke's area

Listening comprehension

IV. Watch the fourth part and find out as many information as you can concerning Dr Talley's behaviour in

1. A conversational setting

He relies on non-verbal cues such as:

facial expressions, people's gestures, intonation of people's voices (prosodic cues)
he seems to understand almost everything

2. A testing situation

He can't rely on non-verbal cues, he understands the picture but he is unable to express himself properly (can't find the right words and can't put them into correct sentences)

Listening comprehension

V. Watch the third and the fifth parts and decide if these statements are true or false.

- a. Wernicke's area is responsible for all comprehension and sentence constructions T / F
- b. New techniques allow doctors to measure language disorders T / F
- c. Dr Dronkars' patients all present damage in Broca's and Wernicke's areas T / F
- d. Many different brain areas are involved in language processing T / F

Listening comprehension

V. Watch the third and the fifth parts and decide if these statements are true or false.

a. Wernicke's area is responsible for all comprehension and sentence constructions

T / F

Wernicke's area cannot be where all comprehension and sentence constructions take place

b. New techniques allow doctors to measure language disorders T / F

measuring precisely how someone's linguistic abilities are affected is difficult because patients use non verbal cues to help them

c. Dr Dronkars' patients all present damage in Broca's and Wernicke's areas T / F

She has assembled a unique collection of stroke patients with language disorders, but even if many of them have damage in the 2 classic language areas, a broader picture reveals a network of many different brain areas

d. Many different brain areas are involved in language processing T / F

Listening comprehension

VI. Listen to the sixth part of the report and fill in the gaps

Unfortunately, we rarely see complete, total in our aphasic patients and the fact is that in most of them, a fairly significant amount of brainby theirand that it is difficult for other brain areas that have for such a long period of time been doing something else to suddenly take on this new function. And what we think happens is that the.....brain areas try to take on thisbut they do it in their own way, but unfortunately, they 're not as good at it as thosebecause they haven't been doing that all those years.

Listening comprehension

VI. Listen to the sixth part of the report and fill in the gaps

Unfortunately, we rarely see complete, total **recovery** in our aphasic patients and the fact is that in most of them, a fairly significant amount of brain **has been affected** by their **injuries** and that it is difficult for other brain areas that have for such a long period of time been doing something else to suddenly take on this new function. And what we think happens is that the **remaining** brain areas try to take on this **task of language** but they do it in their own way, but unfortunately, they 're not as good at it as those **left hemisphere language mechanisms** because they haven't been doing that all those years.