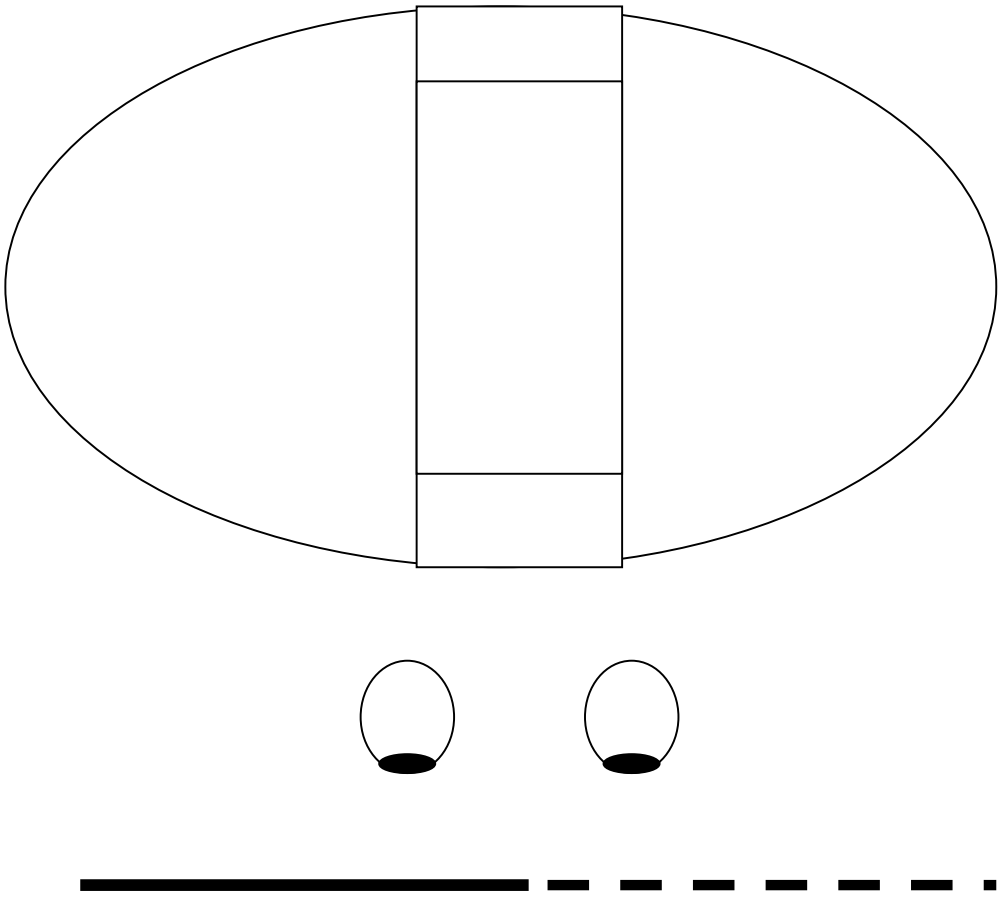
Sperry, R (1968). Hemisphere disconnection and unity in consciousness. American Psychologist, 23, 723-733



Can you label the following?

The Left Hemisphere

The Right Hemisphere

The Corpus Callosum

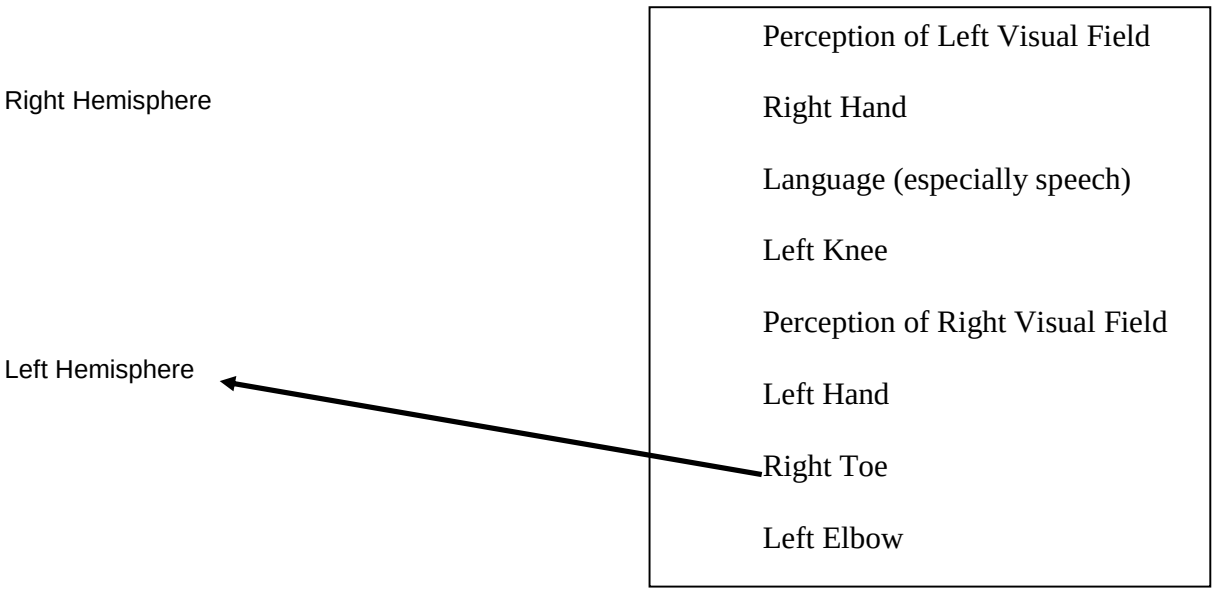
The Right Visual Field

The Left Visual Field

Draw in the visual pathways using 2 different colours

Review Exercise

Connect the functions with the correct hemisphere (one example is done for you)



Method of the study:

This study is both a case and a lab study. We will be focusing on the lab study for today.

Experiment 1 – Language is lateralised

(Fill in the blanks and circle what the subject can do)

When I show an object to the LEFT VISUAL FIELD it goes to the _____ Hemisphere and the subject can

Name it *Draw/select it with the left hand* *Draw/select it with the right hand*

When I show an object to the RIGHT VISUAL FIELD it goes to the _____ Hemisphere and the subject can

Name it *Draw/select it with the left hand* *Draw/select it with the right hand*

Experiment 2 – Memory is lateralised

When I show an object to the left visual field and then the right visual field and then ask the subject if they have seen the object before they will say_____.

Why….

_____

_____

_____

Experiment 3 – The Right Hemisphere is not totally word blind

When a **word** is flashed in the left visual field it goes to the _____ Hemisphere and the subject can

Name it *Draw/select it with the left hand* *Draw/select it with the right hand*

What does this show about the processing of language in the right hemisphere?

_____

_____

_____

Experiment 4 – Two minds, one brain

Under the table a different object is put into each hand (e.g. a key in the left hand and an apple in the right). The objects are then put into a bag with other objects and the subject has to find the original 2 objects as quickly as possible.

Q1 – Do you think split brain people will find the objects faster or slower than normal people will?

_____

Why?

_____

_____

What do you think they would do if the left hand picked up the object the right hand was looking for?

_____

_____

Evaluative Question

Why do we not have any of these problems?

_____

_____

Why do the split brain patients not have these problems in real life?

_____

_____

Controls:

This is a great study to look at controls. A control is something that eliminates interfering variables (i.e. other factors that may affect our results).

These are some of the controls for Sperry, can you say what factors they rule out that might have affected our results. I have given the first one as an example

The Fixation Point This is to ensure that all subjects are looking at the center of the screen so that we can control which hemisphere the image goes into.

Now try these

Image flashed for a 1/10th of a second _____

_____

Subjects are medication free _____

_____

Subjects select objects from a bag under the table and can't see their hands _____

_____

They were matched to normal people by age and gender _____

_____

PROBLEM!

There is one major variable that was not eliminated. What factor did the sample have in common that may have effected how their brain worked?

_____

How could the experimenters have controlled for this factor?

_____

_____

_____