

## SPLIT-BRAIN EXPERIMENTS

### 1. What do you remember about brain lateralization?

### 2. Watch the video and check your answers

[http://www.youtube.com/watch?v=MZnyQewsB\\_Y&feature=related](http://www.youtube.com/watch?v=MZnyQewsB_Y&feature=related) (0:18-1:44)

### 3. Take two pens. With your left hand draw a square, with your right hand draw a circle. Draw both shapes simultaneously.

Have you succeeded? If not, explain why?

### 4. Watch the video and answer the following questions

<http://www.youtube.com/watch?v=lfGwsAdS9Dc&feature=related>

(Dartmouth College, New Hampshire, Michael S. Gazzaniga)

What disease is Joe diagnosed with?

What is Michael S. Gazzaniga's profession?

How long have Joe and Mike been working together?

How often did Joe have seizures? (seizure /'si:ʒər/ - záchvat)

Why did the surgeons sever the connection between his two brains? (sever/'sɛvər/ přerušit)

Are both hemispheres still communicating with each other?

## 5. Describe the experiments – drawing shapes

### Task 1: Compare how normal brain and split-brain work.

fix eyes on the cross in the centre of the screen  
 draw different shapes with both hands  
 get each hand work independently  
 flash to the right/left  
 what each hand does  
 communication between both halves/hemispheres?  
 what the halves of the brain see  
 given a separate instruction

### Task 2: Explain the "toadstool" experiment (toad – ropucha, stool stolička, toadstool – jedovatá houba, muchomůrka)

### Task 3: Answer the questions on the experiment with the paintings of the 16th century painter Arcimboldo

What is typical for Arcimboldo's paintings?

How many times have they been doing the experiment with Arcimboldo's paintings?

What could Joe see with his right / left hemisphere? Why?

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Another interesting link:

[http://www.ted.com/index.php/talks/jill\\_bolte\\_taylor\\_s\\_powerful\\_stroke\\_of\\_insight.html](http://www.ted.com/index.php/talks/jill_bolte_taylor_s_powerful_stroke_of_insight.html)

Jill Bolte Taylor got a research opportunity few brain scientists would wish for: She had a massive stroke, and watched as her brain functions -- motion, speech, self-awareness -- shut down one by one.