

# PSYCHOLOGY: LESSON #14 APRIL 9 SENSATION VS. PERCEPTION

Learning Target: The student will be able to explain the relationship between sensation & perception.

# Warm Up

Look at the image on the following slide. On a slip of paper, write down what you see and what you perceive as you look at the image.



What do you SEE & what do you PERCEIVE?



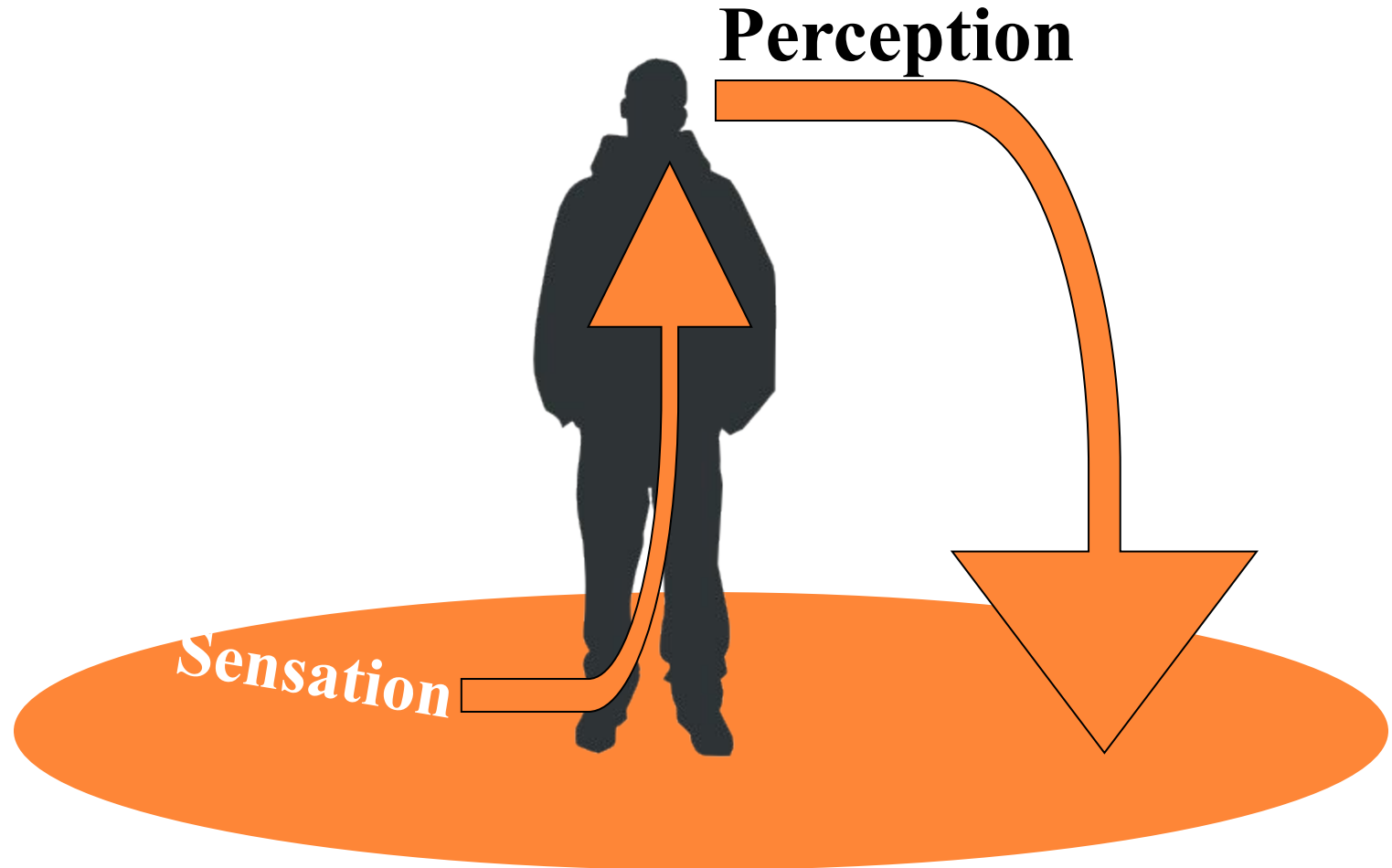
# Warm Up Answer

Did you see a dog or some sort of animal in the middle of the image? Did you see a person or a creature swimming in a lake? Did you see a killer clown? Those are just some of the responses that people often give when asked what they see in this image.

And they're all wrong!

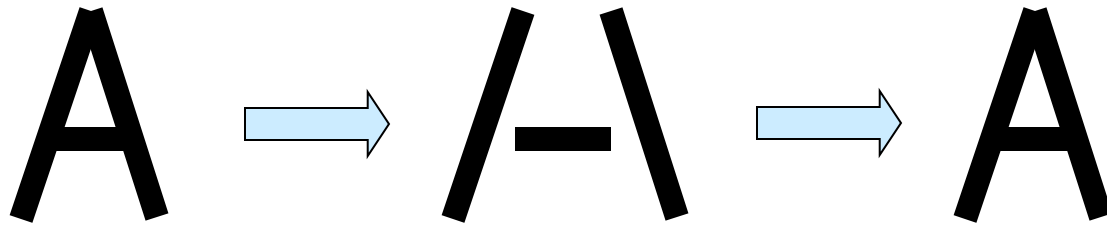
We all see the same thing...the black blotches on a white background. That's what you saw which would be the same for everyone. However, when those patterns and colors made their way into your brain, your brain took put them together and using information it had already built up in your mind, perceived them as being the dog, the swimmer, or even the clown.

Sensation = Bottom-Up Processing  
Perception = Top-Down Processing



# Bottom-Up Processing

The analysis of a stimulus begins with the sense organ's receptor sites and works up to the level of the brain and mind. This is the process of sensation or "Bottom-Up Processing" as the information is going up to the brain.



The letter "A" is really a black blotch broken down into features seen by our eyes that are then sent to the brain and the brain that we perceives this pattern as an "A."

# Top-Down Processing

Processing of information is guided by higher-level mental processes. As we construct perceptions we draw on our experience and expectations. The brain has taken the information and using what it already knows, gives us a perception. This is “Top-Down Processing.”

Did you read the bottom of this slide as “THE CAT?” Probably so, but does it doesn't really say that? The A in CAT actually looks more like an H, but our brain, using its previous experiences and expectations, told us the middle letter was an A because we know the word CAT.

**THE CAT**

## ACTIVITY: Top-Down Processing

Take 30 seconds and try to read the following passage to yourself:

“Goccdrnia to hschearcr at emabrigdc  
yinervtisu, it teosn'd rttajem in tahw rredo  
the stteerl in a drow are, the ylno tprmoetni  
gihnt is taht the trisf and tsal rtteel be at the  
tghir eclap. The tser can be a lotat ssem  
and you can litls daer it touthiw a morbelp.  
Siht is ecuseab the nuamh dnim seod not  
daer yrvee rtetel by fstlei, but the drow as a  
elohw.”



## ACTIVITY: Top-Down Processing

You probably struggled with that. Now try to read the same passage, with a small change:

“According to research at Cambridge University, it doesn't matter in what order the letters in a word are, the only important thing is that the first and last letter be at the right place. The rest can be a total mess and you can still read it without a problem. This is because the human mind does not read every letter by itself, but the word as a whole.”

# Student Practice:

1. Sensation is which type of processing?
2. What does Top-Down Processing create in our brain?
3. What does our brain draw on to create our perceptions of what has been sent to our brain?
4. Where does the analysis of a stimulus begin?

# Student Practice Answer Key:

1. Sensation is which type of processing? -  
BOTTOM-UP PROCESSING
2. What does Top-Down Processing create in  
our brain? - PERCEPTION
3. What does our brain draw on to create our  
perceptions of what has been sent to our  
brain? - EXPERIENCE AND EXPECTATION
4. Where does the analysis of a stimulus begin?  
- SENSE ORGAN RECEPTOR SITES

# Additional Resources

VIDEO: [Psychology in the Fast Lane - Information Processing in the Brain](#)

VIDEO: [Psychology in the Fast Lane - Top-Down vs. Bottom-Up Processing](#)