

# Mind and Brain

HCI 530 with Heather Rohr

*Expanded Edition*

# How People Learn



**Brain,**



**Mind,**

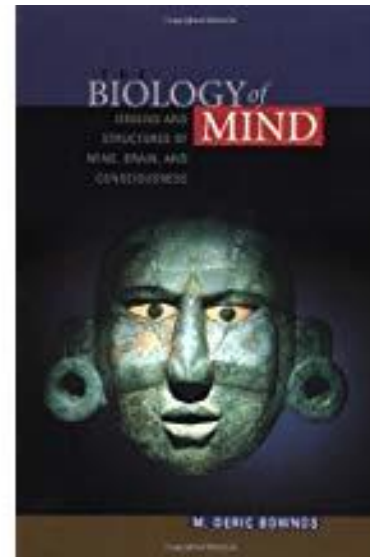


**Experience,**

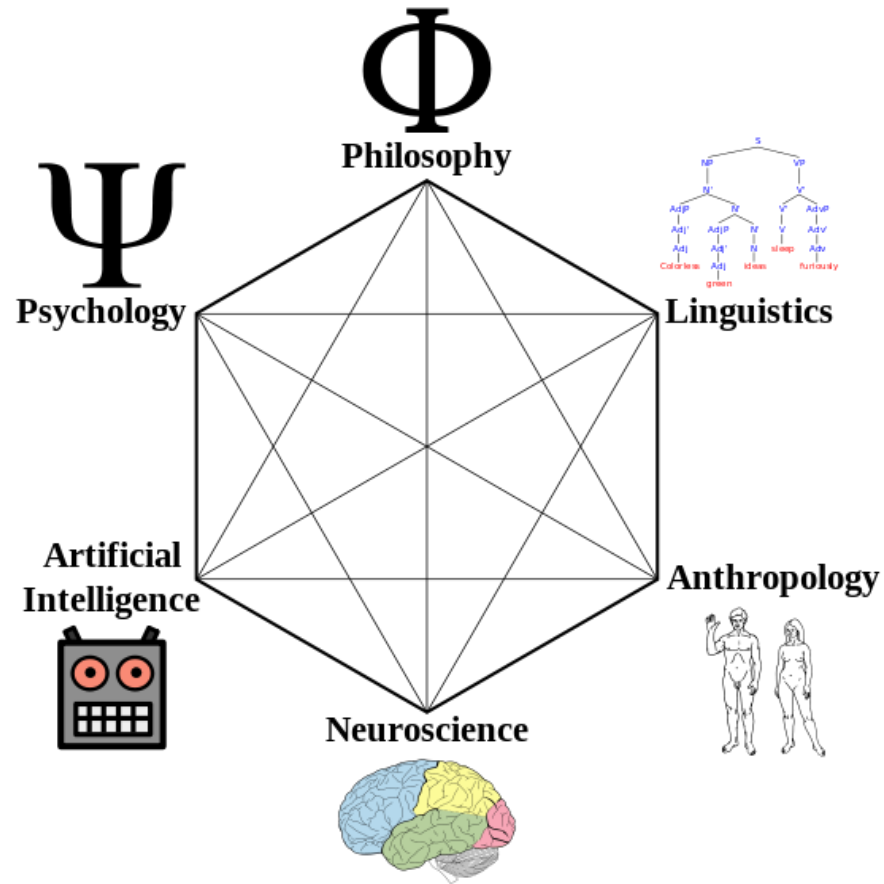
**and**

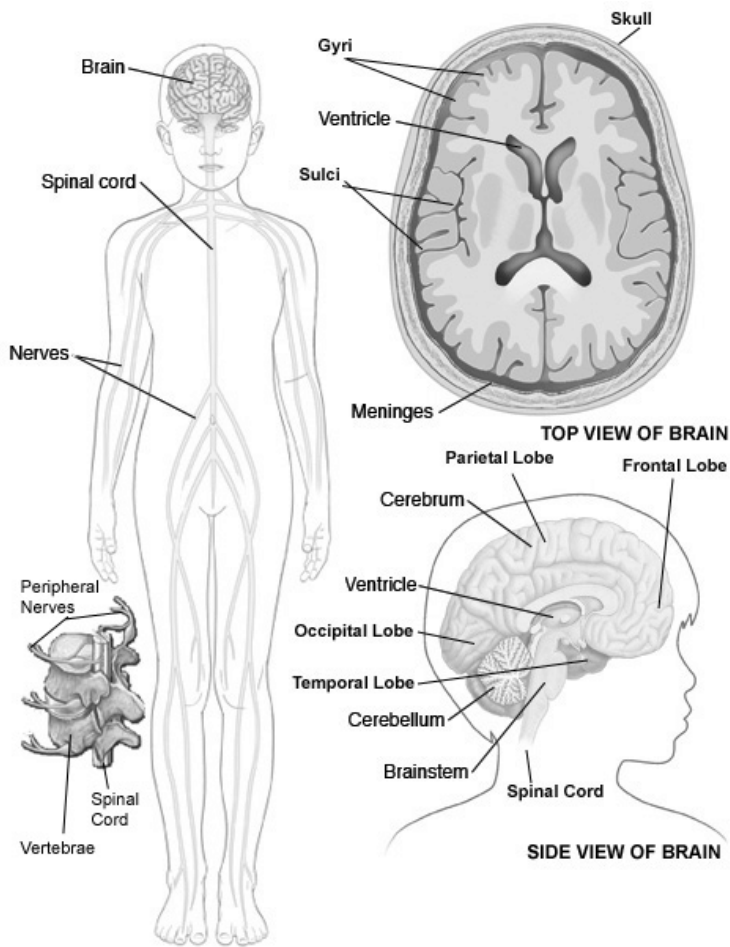
**School**

NATIONAL RESEARCH COUNCIL

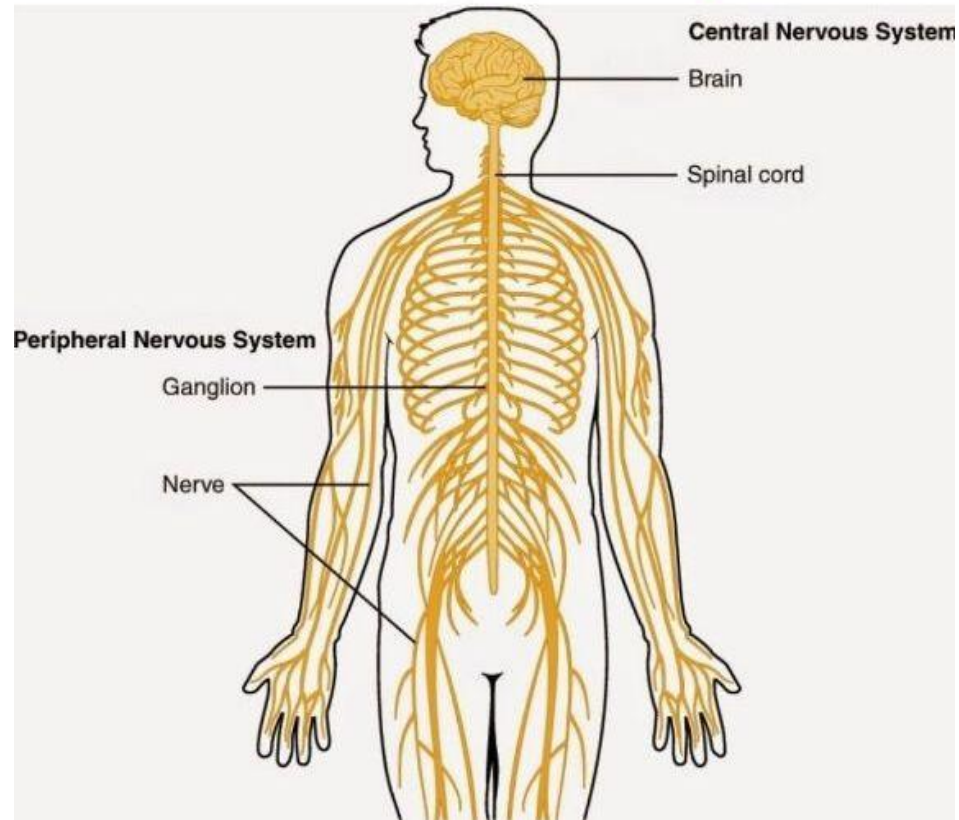


# Cognitive Science





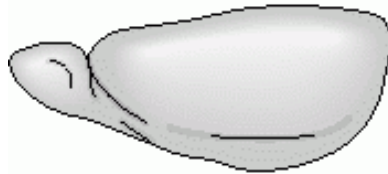
# Central Nervous System



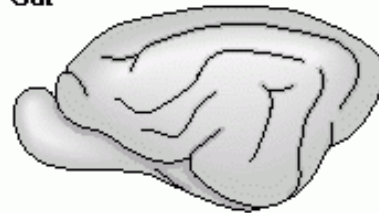
Borrowed from  
“The Student Science” (online)

# Different animal brains

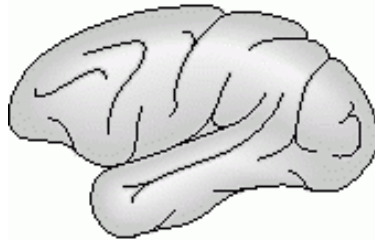
**Rat**



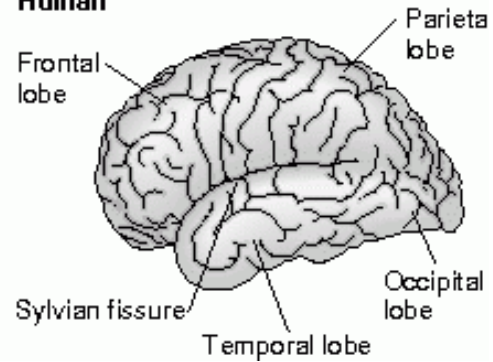
**Cat**

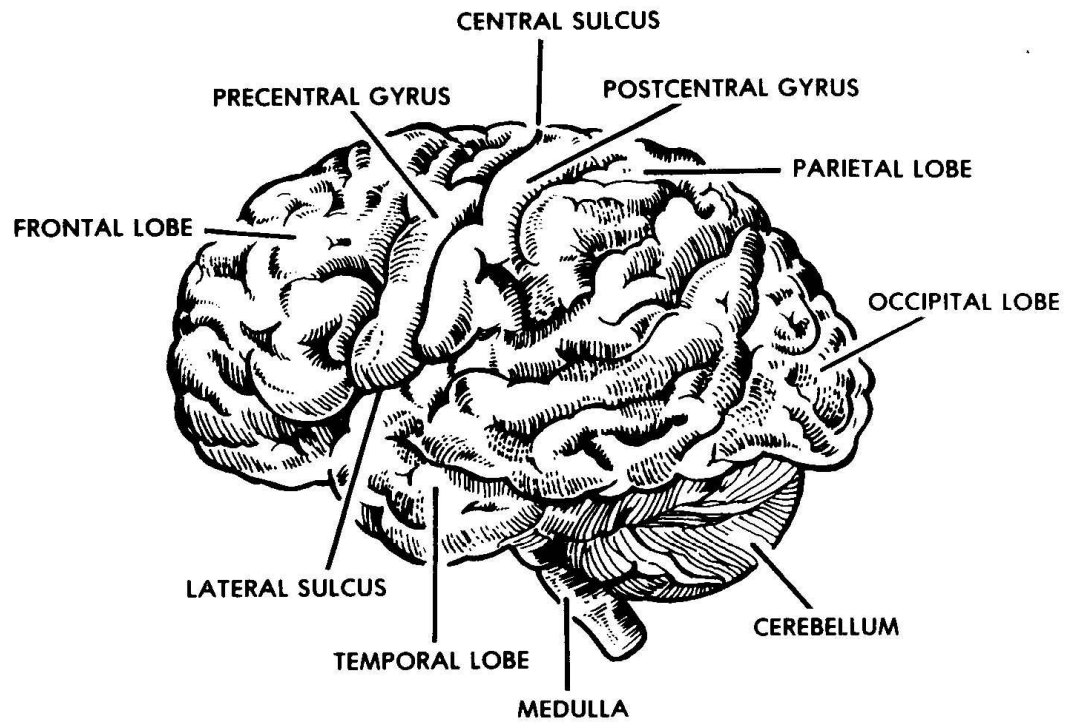


**Monkey**



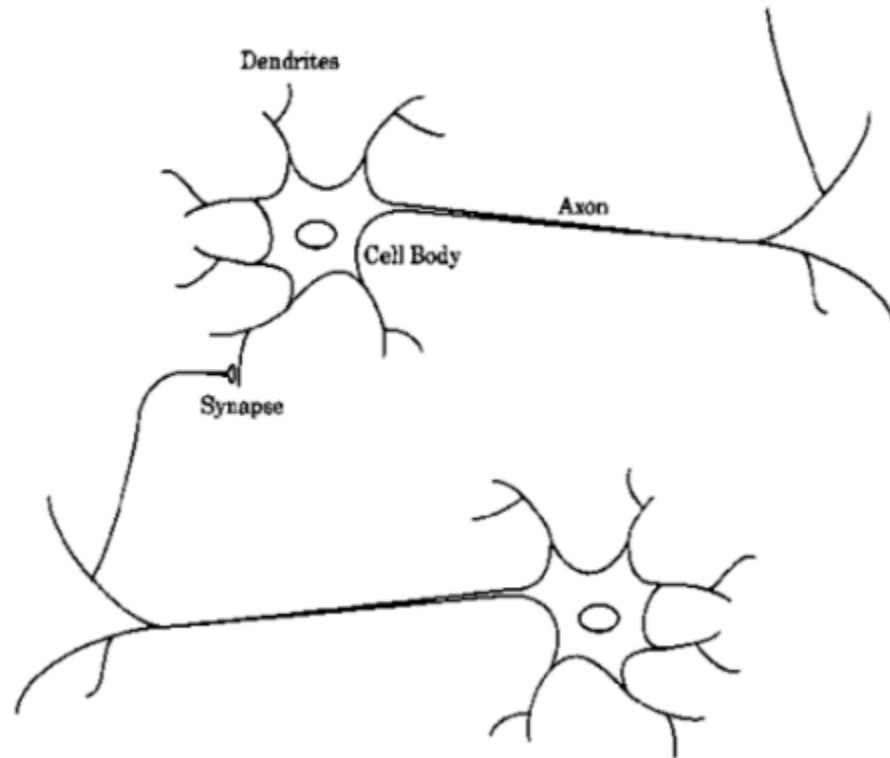
**Human**

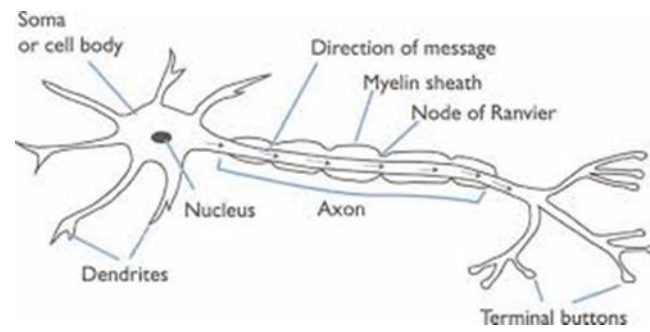






# Schematic drawing of biological neuron







Vector images from :  
© [harboarts.com/artwork](http://harboarts.com/artwork)

# Activity

- Get paper ready in a moment
- (I will read off a list)

# Activity –list of words

- Sour
- Candy
- Sugar
- Bitter
- Good
- Taste
- Tooth
- Knife
- Honey
- Photo
- Chocolate
- Heart
- Cake
- Tart
- Pie

# Activity –list of words

- Sour
- Candy
- Sugar
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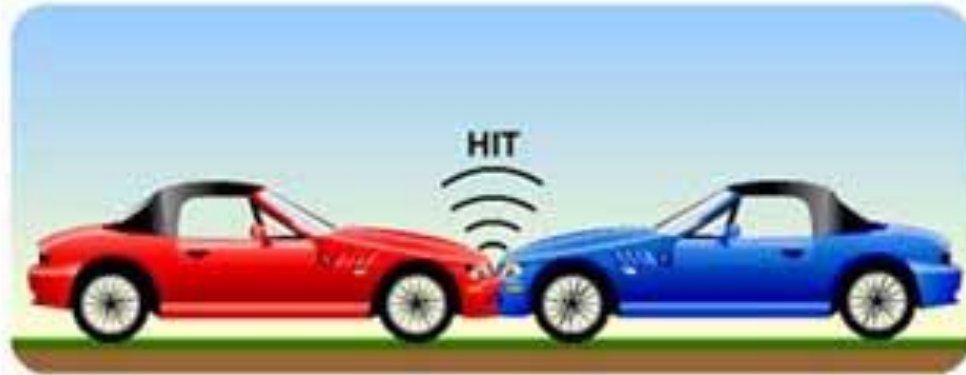
\* The word “sweet” was not on the list

# False memory



Dr. Elizabeth Loftus at a TED Talk

# When words influence a “false” memory



(Simply Psychology)



# Elizabeth Loftus

## The Misinformation Effect & Expert Testimony

Due to TV and misconceptions and different portrayals of flashbacks and remembering, people often believe that memory is something that is stored like a video and then re-watched, however, each time something is remembered the brain rebuilds the experience, making it different each time as the memory slowly loses accuracy. Not only is this frightening to people, as it could be as not being able to trust one's recollection, but also it means that memory can be influenced in different ways.



Several weeks after a car accident, many people had trouble recalling if signage was stop or yield. This was further influenced by the language choices researchers made while asking people questions.

Loftus conducted research at University of Washington and realized the legal significance of this power and how it could effect eyewitness testimonies, and presented and published her study.



**memory experienced and stored.**

if traumatic or of significant importance- immediately copied into long term memory.



**time elapses.**



**memory is recalled.**

It has been altered in the recollection process and is different from the first experience. the alteration if the memory is stored.

**REPEAT.**

