Biological Bases of Behavior Journal

Entry 1

Are you currently in love? Have you been in love before? Think about your current love or a time you were in love previously. It can even be a familial or friendly love.

OBSERVABLE LOVE
- Would someone be able to tell you are in love just from looking at you?
- What are outward behaviors you can willfully exhibit to demonstrate love?

PHYSIOLOGICAL LOVE
- What automatic internal processes signify you being in love?
  - what would be different internally between someone in love and someone not in love?
  - what physically changes inside you when you are in love?
- Can you describe the emotional feeling of being in love?
Entry 2

Think back to the worst “fight-or-flight” situation you’ve ever experienced (basically, when have you been the most nervous about an event?). Maybe it was...

- Taking a final exam for the hardest class on your schedule
- Going on a first date with someone you really liked
- Competing in a major sports competition
- Going to your first party and not knowing what to do/how to act
- Something else?

First describe the situation you remembered. In that moment, what would have been a “fight” response? What would have been a “flight” response? Which action did you perform—and which response did it align with?

How did your body react internally to the situation? What signs of the stress response would be evident?

How did your body react externally to the situation? What signs of the stress response would be evident?
Entry 3

Your body is comprised of subdivisions of your nervous system. For each, list five examples of how you/your body has utilized that nervous system subdivision today.

CENTRAL NERVOUS SYSTEM (CNS)
• contains the brain and spinal cord

SOMATIC NERVOUS SYSTEM
• voluntary control of body movements via skeletal muscles

SYMPATHETIC NERVOUS SYSTEM
• stimulates the body’s “fight-or-flight” response; activates/increases body functions

PARASYMPATHETIC NERVOUS SYSTEM
• stimulates the body’s “rest-and-digest” response; calms the body after “fight-or-flight” response concludes; reduces/decreases body functions
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Entry 4

Using your new knowledge of neurons/neuronal transmission along with your basic knowledge of toilets and their operation, critically think about how the following terminology/vocabulary applies to both processes. Then, describe how the terms compare and/or are similar/relatable to both neurons firing and a toilet flushing.

• resting potential

• all-or-nothing principle

• impulse direction

• threshold

• action potential

• refractory period
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Entry 5

Have you ever received a major scan to your brain or body? What was the reason for the scan? Did you suffer an injury or a condition of some kind? Were you nervous before receiving the scan? What emotions were you experiencing?

What type of scan did you receive? Explain

- **EEG** (Electroencephalogram) – electrodes placed on scalp to measure brain wave activity
- **CAT scan** (Computed Tomography) – series of x-ray photographs from multiple angles composited into a single image
- **PET scan** (Position Emission Tomography) – radioactive dye clinging to glucose is consumed while the brain performs a task
- **(f)MRI** [(functional) Magnetic Resonance Imaging] – utilizing magnetic fields and radio waves to produce images of the brain