PYSC1002 NOTES

Semester 2 2019 USYD

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Learning & Motivation

Learning & Motivation 1: Intro & Basic Biological Processes

- Learning = enduring change within an organism brought about by experience → change in behaviour
- Learning ≠ performance
    - Performance depends on learning, opportunity, motivation, sensory & motor capabilities
- Learning is not reflexes (innate), instincts (genetics), maturation (changes in behaviour brought about by aging) or fatigue (changes are not stable)
- Reflexes:
    - Automatic, usually very fast
    - E.g. air puff → eye blink, food → salivation (helps w/ digestion), movement → eye turn, knee tap → knee jerk (patellar reflex), touch baby's cheek → head turn (rooting reflex), paid → withdrawal
    - Eliciting stimulus → reflex (corresponding response)
    - Generally helpful (e.g. rooting reflex helps baby find milk)
    - Arm withdrawal involves the fewest neurons out of any type of behaviour (sometimes only 3)
    - Reflex arc:
        - Sensory (afferent) nerves detect stimuli
        - Motor (efferent) nerves stimulate muscles
        - Passing threshold → efferent nerves
        - Reduction in efferent stimulation → response strength
- Instinct:
    - Behavioural sequences (reflex is just 1 thing)
    - Made up of mostly genetically determined units → typical of all members of a species
    - E.g. mating rituals (easier to see in animals than humans)
- Maturation:
    - Developmental; results from changes in the body's composition
    - E.g. 'learning' to walk (not actually technically learning)
        - Baby has reflex to stick out its legs and later legs grow to be able to support the baby walking