

Questions to answer from Chapter One:

P15 Can you describe the basics of an experiment in Psychology? Obviously, there are many different methods but you should be able to talk about "hypotheses", "dependent" and "independent" variables, "control groups", and "confounds".

People with a deeper interest in psychological research will look at Appendix A on Statistics at the back of the book.

Lecture One: Part One - What is this course all about?

The example of love (The book does emotion, in general).

A few words about the course

Questions to answer from Chapter Two:

P44 What are the basic methods used to study the brain?

P49 What are the hindbrain and midbrain good for? And why don't forebrain, midbrain, and hindbrain correspond to front, middle, and back of *your* brain?

P53 You should be able to say something about the function of the following bits of cortex: Primary motor projection area (or "motor cortex"), somatosensory cortex, auditory cortex, and visual cortex.

P56 You should be able to say something about the likely effects of damage to each of the lobes of cortex (And you should be able to locate those lobes: occipital, parietal, temporal, frontal).

P60 What is the corpus callosum and what happens if you cut it?

P63 Describe the parts of a typical neuron and what they do. Terms: dendrite, cell body (soma), axon, nodes of Ranvier, myelin sheath, glial cells.

P66 How does a neuron work? Terms: Action potential, resting potential, synapse, neurotransmitter (Those with real interests in this area ...e.g. pre-med sorts...will want to know something about specific neurotransmitters.)

Lecture One: Part Two - The Brain

Materialism and dualism

How can we find out what brain does?

Four broad classes of method, each with advantages and problems

- 1)
- 2)
- 3)
- 4)

Brain terms that you will want to know (repeated in the book)

Lobes of the cerebral cortex: Frontal, parietal, occipital, temporal

Where are visual cortex, somatosensory cortex, motor cortex, auditory cortex, Wernicke's and Broca's areas

Limbic system, basal ganglia, brain stem/core, cerebellum

Neuron: axon, dendrite, soma, myelin, synapse

Neuronal Transmission: action potential, neurotransmitter

How a neuron works: The basics

Something to write about, #1: The Faithful Vole

Can fidelity in love be reduced to neurochemistry? If it can, how might that work? Is there a commercial product here? Start with the Vole Files (on the website).

The beginning reference is an article in Nature:

LIM, M. M., WANG, Z., OLAZÁBAL, D. E., REN, X., TERWILLIGER, E. F., & YOUNG, L. J. (2004). Enhanced partner preference in a promiscuous species by manipulating the expression of a single gene. *Nature*, 429(6993), 754-756.

You will also find

Diamond, L. M. (2004). Emerging Perspectives on Distinctions Between Romantic Love and Sexual Desire. *Current Directions in Psychological Science*, 13(3), 116.

This might provide some non-vole material for you. Also included are several news stories about the vole article