Behavioral Genetics Discussion Outline

I. 12:30-1:25; Dr. Burk’s talk, followed by questions over it and ~5-minute break
II. 1:30-1:55; Nick’s talk, followed by questions, ~5-minute break
   A. Neural development
      1. Neurulation and neurogenesis
      2. Migration
         a. Neuronal differentiation
            i. Notch
            ii. Ephrins (esp. B1)
         b. Pathfinding
      3. Synaptogenesis
         a. Experience-expectant
         b. Experience-dependent
      4. Maturation and Pruning
         a. NMDA and long-term potentiation
         b. comparison of pruning in various brain regions
      5. Gliogenesis
      6. Myelination
         a. relative to normal growth
         b. relative to environmental idiosyncrasies
   B. Neural and behavioral changes/deficits due to
      1. Trauma
         a. physical lesions
         b. psychological stress
      2. Toxin exposure
      3. Age
         a. Alzheimer’s disease

III. Behavioral Genetics Show and Tell
   A. me first
   B. whoever else is dying to go
   C. whoever’s comfortable going
   D. everybody else

IV. General discussion
   A. points that cropped up during course of class period
   B. pre-formulated points:
      1. ethics and value of animal testing?
      2. shared/unshared goals of psychology and neuroanatomy?
      3. personhood = product of neural circuitry?
      4. responsibilities of the psychologically educated to dispel common fallacies in society?