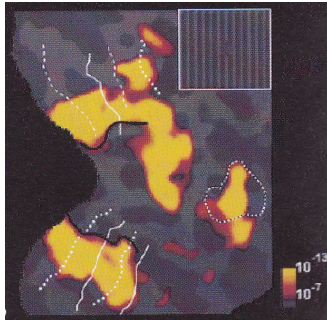


Visual Perception

Med3, Aalborg

Lecture 3 Exercises

1. Study the picture below and answer the questions that follow it.



- a. What is this a picture of?
 - b. What kind of image is it?
 - c. Is the thing the animal is looking at moving or stationary?
 - d. Is the thing the animal is looking at in the centre of its visual field or in peripheral vision?
 - e. Is the scene in bright daylight or is it quite dark?
2. Read Chapter 2 of *Explorations in Cognitive Neuropsychology* by Alan Parkin (available on Moodle) and answer the following questions.
- a. Does all the information from the retina go to area V1?
 - b. What is the *geniculo-striate pathway*?
 - c. What is hemianopia and how can it arise?
 - d. What is *non-striate vision*?
 - e. In vision research, what is meant by the terms *grating* and *spatial frequency*?
 - f. Can high-frequency gratings be detected by non-striate vision? What about low-frequency gratings?
 - g. What is a *scotoma*?
 - h. What is the method of perimetry?
 - i. Could DB discriminate form in his scotoma?
 - j. What is the "stray light hypothesis" for explaining blindsight?
 - k. What evidence is there that blindsight cannot be explained by the stray light hypothesis?
 - l. What evidence is there that the visual processing undertaken in DB's scotoma is qualitatively different from that occurring in his intact field?
 - m. What is *encephalization*?
 - n. Is the *superior colliculus* part of the striate or the non-striate visual pathway?
 - o. Do Schneider's (1967) results point to the non-striate pathways being more concerned with *what* things are or with *where* things are?

- p. As the length of time that we are exposed to a visual stimulus gets shorter and shorter, which ability disappears first - our ability to detect *what* it is or our ability to detect *where* it is?
- q. What is *inhibition of return* and how has this been shown to be connected to the non-striate visual pathways?