9.01 - Neuroscience & BehaviorFall 2003Massachusetts Institute of TechnologyInstructor: Professor Gerald Schneider

9.01 Study Questions Lecture 30

- 1. Humans, monkeys and rats, in a number of early studies, reported only one residual visual ability after striate cortex removal. It was usually referred to as an ability to discriminate brightness. Was this really the only interpretation of the findings? (What is brightness?)
- 2. Explain the double dissociation obtained in lesion studies of superior colliculus and visual cortex in the Syrian hamster.
- 3. Explain the terms "salience of visual stimuli" and "blindsight" as used to describe the behavior of monkeys after ablation of striate cortex.
- 4. What unconscious vision do humans have? Try to describe some examples.
- 5. What pathway might a squirrel of tree shrew use, besides the geniculo-striate pathway, for discriminating visual shapes and patterns?
- 6. What is the "Sprague effect" in cats with unilateral neocortical lesions (an effect due to diaschisis)?
- 7. What is the Klüver-Bucy syndrome in monkeys? (Describe the lesion and the behavioral abnormalities. See textbook, p. 479.) Describe the purely visual component of this syndrome. What part of the lesion accounts for this component?