**Questions to Consider**

Chapter 2: Cognitive Neuroscience

* **How is the examination of brain activity involved in the study of cognition?**

A number of brain activity recording techniques are used by cognitive neuroscientists to better under­stand how brain activity is tied to cognition. All rely in some way on neuron activity, with some (single-cell recordings, EEG) measuring the electrical sig­nals from neurons and others (PET, fMRI) recording images of neuron activity in larger areas of the brain.

* **How do case studies of individuals with cognitive deficits inform us about the connection between cognition and brain function?**

Individuals who have suffered a brain lesion can help us connect cognitive deficits to specific areas of the brain. By examining the area(s) of the lesion and which cognitive deficits the individuals have, researchers can make hypotheses about the primary function of different areas of the brain. Much of the early knowledge of localization of function in the brain came from such clinical case studies.

* **What can be learned about cognition through measurements of neuron activity in the brain?**

Like clinical case studies, researchers can connect specific brain areas with cognitive abilities. However, measurements of brain activity also allow researchers to provide better tests of hypotheses about brain function because experiments can be conducted with brain activity as the dependent measures.

* **Can all behavior be explained in terms of brain activity?**

Some studies suggest that it can, at least for simple behaviors. However, the answer to this question is not yet known.