The left and right hemispheres of the brain have specialized functions for most people. The left hemisphere is a language center while the right hemisphere processes spatial information. These differences are most obvious in those rare individuals whose corpus callosum was surgically severed to help control a severe form of epilepsy. But are these differences apparent in the behavior of individuals with an intact corpus callosum?

You will need a cooperative volunteer for this demonstration. Sit opposite your volunteer and note the direction of his or her gaze when you ask the following questions:

1. Is Chicago north of Washington, D.C.?
2. Name three synonyms for "walking."
3. How many sides are in a Stop sign?
4. Which word has more letters: knowledge or personal?
5. What states share a border with North Carolina?
6. What is the meaning of the word "program"?
7. If you are driving North and make three right-hand turns followed by one left-hand turn, in what direction are you now headed?
8. Name three synonyms for "intelligence."
9. What direction does Thomas Jefferson face on a five cent coin?
10. How many letters are in the word "portrait"?

Watch the direction your subject gazes as she or he considers the answers to your questions. Most people will look to the right when thinking about language-related questions (the even-numbered questions) and look to the left when thinking about the spatial questions (the odd-numbered questions). While the exact mechanism is unknown, these eye-movements are hypothesized to be a consequence of our hemisphere's specialized functions.
(for the curious, the answers are: 1. Yes; 2. "strolling," "hiking," "marching" (among others); 3. eight; 4. "knowledge" has nine letters while "personal" has eight; 5. Virginia, Tennessee, South Carolina, Georgia; 6. an entertainment event, list of events, or set of computer instructions; 7. South; 8. "brains," "smarts," "wit" (among others); 9. to the left or "West"; 10. eight.)