Are Cats Right or Left Pawed?

If you're a southpaw, you write, bat balls, and do most things with your left hand. The majority of your friends are righties, however. And most humans have the same preference. But how about other animals? Cats, for instance. Do they prefer one paw over the other?

For years most scientists have thought that only humans have hand preferences because only humans have brains whose right and left "hemispheres," or sides, are "specialized." That is, each side of the brain tends to exercise control over specific functions, such as speech.

Recently, however, scientists made some challenging observations in the lab. They found that some non-human primates, such as monkeys, for example, depend more on one hand than the other to do certain things. Perhaps their brains are specialized too.

Could it be that other animals are "handed" too (and that their brains are specialized)? Try this science project to find out if cats have paw preferences.

Purpose:

- To find out if cats are right- or left-pawed.

Materials:

- Several cats (Ask your neighbors if you can borrow their pets for observation. Find out their names and vital statistics — age and sex.)
- string
- wads of paper
- notebook

Observations:

- Observe each cat's behavior in its own home or yard. Does the cat appear to use one paw more than the other for scratching, swatting, digging, and so on? Record your observations in your notebook. Include as much detail as possible. For example, "Cat rubs nose with right paw three times."
- Come up with a hypothesis that you think will explain your observations. Your hypothesis might be that cats are either righties or lefties, or that they show no preference.
- Then design an experiment to test your hypothesis. If cats are lefties and righties the way people are, how often will they use their preferred paw? In other words, how do you decide whether a cat shows preference?
- How do you know your results will stand up — i.e., that your experiment is " valid? " The answer is to test the cats in a variety of ways. Also, to make sure your results are " reliable " and not just due to chance, you'll want to test each cat several times.

- Here are three tests that other students designed. You may want to come up with some of your own.

Procedure:

Test the cats one at a time.

- Test 1: Bring the cat into a quiet place so it won't be distracted. Dangle a string a few inches in front of its eyes. If the cat swats at the string, note which paw it uses. Repeat 10 times with each cat.
- Test 2: Now pull the string across the floor in tops and starts. Again note which paw the cat uses to swat at the string. Repeat 10 times with each cat.
- Test 3: Crumple up a wad of paper within earshot of the cat — this should excite the cat for the chase. Toss the wad under a couch or table that's low enough so the cat can't fit under it. Note which paw the cat uses to dig out the paper. Repeat 10 times.

Results:

- Make a chart showing your data for each cat. Include the vital statistics and which paw the cats used for each test. Then make a chart that summarizes the data for all of the cats. Include data on age, sex, and paw preference, so you can compare.

Conclusion:

- Do your data support your hypothesis? Do all or most cats show a preference for the right or left paw? Are there any differences in pawedness between cats of different ages or sexes? What would you conclude about the brain specialization of the average cat compared to that of the average monkey? What kind of additional research do you need to do, either in the library or the lab, to explain your data?