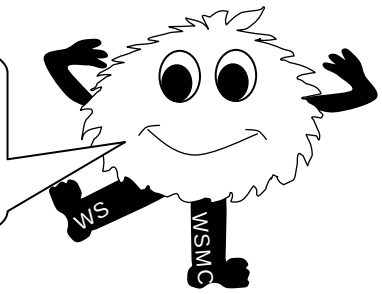
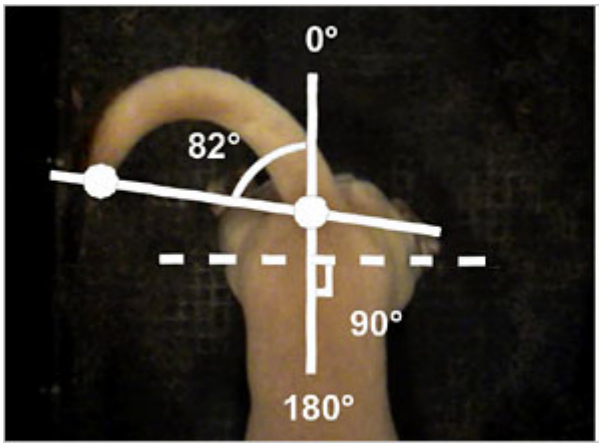
Dazzling Data

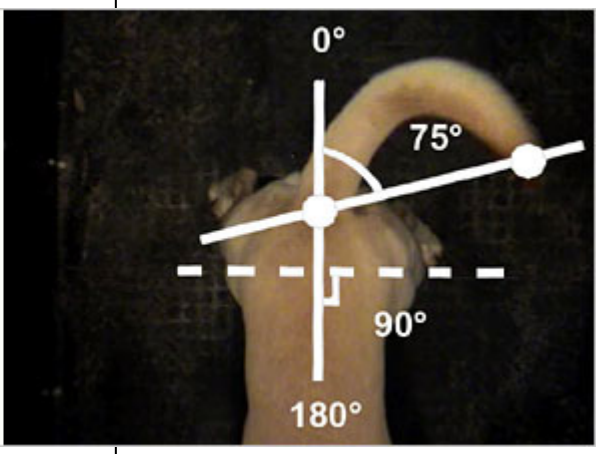
Got an idea for **Dazzling Data**?

Jot it down and send to Donna Buck, PO Box 170, Joyce, WA 98343 (electronic information can be sent to buckdj@olypen.com).



If You Want to Know if Spot Loves You So, It's in His Tail
By SANDRA BLAKESLEE, New York Times





Do dog tails show emotional asymmetry, or not? To find out, Dr. Vallortigara, a neuroscientist in Italy, and his colleagues recruited 30 family pets of mixed breed that were enrolled in an agility training program. The dogs were placed in a cage equipped with cameras that precisely tracked the angles of their tail wags. Then they were shown four stimuli through a slat in the front of the cage: their owner; an unfamiliar human; a cat; and an unfamiliar, dominant dog.

In each instance the test dog saw a person or animal for one minute, rested for 90 seconds and saw another view. Testing lasted 25 days with 10 sessions per day.

When the dogs saw their owners, their tails all wagged vigorously with a bias to the right side of their bodies, Dr. Vallortigara said. Their tails wagged moderately, again more to the right, when faced with an unfamiliar human. Looking at the cat, a four-year-old male whose owners volunteered him for the experiment, the dogs' tails again wagged more to the right but in a lower amplitude.

When the dogs looked at an aggressive, unfamiliar dog — a large Belgian shepherd Malinois — their tails all wagged with a bias to the left side of their bodies.

Thus when dogs were attracted to something, including a benign, approachable cat, their tails wagged right, and when they were fearful, their tails went left, Dr. Vallortigara said. It suggests that the muscles in the right side of the tail reflect positive emotions while the muscles in the left side express negative ones.

While some researchers have argued that only humans show brain asymmetry — based on the evolution of language in the left brain — strong left and right biases are showing up in the brains of many so-called simpler creatures...

The asymmetry may also arise from how major nerves in the body connect up to the brain, said Arthur D. Craig, a neuroanatomist at the Barrow Neurological Institute in Phoenix. Nerves that carry information from the skin, heart, liver, lungs and other internal organs are inherently asymmetrical, he said. Thus information from the body that prompts an animal to slow down, eat, relax and restore itself is biased toward the left brain. Information from the body that tells an animal to run, fight, breathe faster and look out for danger is biased toward the right brain.

In this way, Dr. Craig said, animals are naturally designed to cope with changing environments.

Information on this article was found from the
MathNEXUS website,
http://mathnexus.wwu.edu

… By bringing these researchers into math classrooms, perhaps we can determine similar visual signals amongst students...and how this signal changes progressively as the students face a particular teacher...a math book...or even different types of math problems. The dilemma: Even if we know which way the proverbial "tail is wagging," what do we do about it?