



Babbling baby: a young greater sac-winged bat

Side Benefits

Like right- or left-handed people, most animals seem to favor one side of their bodies for certain tasks. Lateralized behavior is a sign that the animals' brains are lateralized as well. But is there any benefit to having a lateralized brain? A recent study by Marco Dadda, a psychologist, and Angelo Bisazza, an evolutionary biologist, both at the University of Padua in Italy, suggests that lateralization may make animals better at the critical skill of multitasking—attending to two or more activities at the same time.

Goldbelly topminnows are small Central American fish that belong to the guppy family. Female goldbelly topminnows must put up with repeated attempts by males to mate with them. The suitors can be distracting, even exasperating, to females, particularly when they are trying to eat. Dadda and Bisazza compared the feeding efficiency of female goldbelly topminnows bred to be lateralized with that of females bred to have no side preference. When there were no distracting males, the two kinds of females caught food equally well. When randy males were present, however, only the lateralized females kept eating efficiently, while still avoiding unwanted advances. Parallel processing seems to benefit from a brain with asymmetrical function. (*Behavioral Ecology* 17:358–63, 2006) —Stéphan Reebbs

creature. Not only does it make sounds to

Burgers and Flies

Grab that flyswatter! Public-health entomologists have discovered antibiotic-resistant bacteria lurking in the guts of houseflies buzzing around fast-food joints. Ludek Zurek and Lilia Macovei of Kansas State University in Manhattan, Kansas, captured more than 200 houseflies at five restaurants in a northeastern Kansas town. The entomologists isolated and cultured bacteria from the flies' guts, then exposed the bacteria to antibiotics. Two-thirds of the bacteria survived treatment with a single common antibiotic, and, of those, half survived treatment with two or more antibiotics. Zurek and Macovei also identified genes that confer immunity in most of the resistant bacteria's DNA.

The houseflies may have come from farms, the entomologists say. In the U. S., livestock are regularly dosed with antibiotics to encourage growth, and so their gut bacteria often evolve resistance to the drugs. Houseflies that develop in and feed on the animals' waste swallow bacteria when they eat. Then, being long-distance aviators, they can fly to town—hence their nickname in Zurek's lab: "flying manure."

Houseflies enjoy many of the same foods people do, including cooked meat and sweets. And they go to the same restaurants. They eat messily, spitting and regurgitating on their meal before digging in. In the process, a house-

babbles, the pups' vocalizations were similar to adults' calls, and the pups made them without regard for social context, typically while alone. Intriguingly, pups of both sexes practiced parts of the courtship and territorial songs sung in adulthood only by males. Babbling, the authors contend, may be essential for any animal to master a large vocal repertoire. (*Naturwissenschaften*, DOI 10.1007/s00114-006-0127-9, 2006)

—S.R.

fly's lunch—which may be *your* lunch, too—is doused with the contents of the fly's gut, including any bacteria, antibiotic-resistant or not, that the fly is carrying.

As unappetizing as that may sound, most gut bacteria from flies are relatively harmless, so their immunity to antibiotics might not seem alarming. But bacteria readily exchange genes, so the gut bacteria could pass resistance genes on to nastier species, which houseflies also carry. And those little monsters can prove immune to current medical treatments—a mounting concern for physicians. (*Applied and Environmental Microbiology* 72: 4028–35, 2006)

—Ciara Curtin

