

FOIL ATTACK

I get two bottles of milk delivered to my house each day. One, containing whole milk, has a silver foil top, whereas the other, containing semi-skimmed milk, has a silver top overprinted with red stripes. Based on observation over several years, the local magpie population will often try to peck at and remove the striped top but hardly ever attack the plain silver foil top. Have other readers observed magpies or other birds being so discerning and is there a scientific explanation for it?

There are two potential explanations. Firstly, the magpies in your garden may be showing some form of aversion to the silver bottle-tops. Birds often show unlearned aversions to food of certain colours, but these tend to be colours that are associated with toxic insects, such as the black and yellow stripes of wasps or the red and black spots of ladybirds. While this could be the case with your magpies, I doubt it because the red-striped tops would appear to be more reminiscent of the colour patterns of toxic insects than the silver tops.

The theory I favour is that your birds know what's good for them! Insectivores such as magpies need a diet rich in protein with lower levels of both carbohydrates and fat. Just like in humans, high-fat diets can cause magpies to suffer from high levels of cholesterol and all the medical problems associated with that. Birds are excellent judges of the toxin and nutrient content of the food they eat and by choosing to drink the semi-

skimmed milk over the whole milk they get the benefit of a high-protein food source without the costs associated with eating fatty foods.

Maybe magpies could teach us all a thing or two about healthy eating.

*John Skelhorn
The Institute of Neuroscience
Newcastle University, UK*

In my youth, we used to have ordinary milk, with a red top, and creamy Guernsey milk, with a silver top, delivered to our home. The blue tits always attacked the creamier Guernsey bottles. After a couple of years, the dairy changed the cap colours to silver and gold, respectively. The birds learned the new colour code in about two weeks.

Your magpies are either stupid or fashionable – assuming, of course, there is a difference.

*Alan Calver
Bishops Stortford, Hertfordshire, UK*

DEXTRIOUS DILEMMA

Why are some people left-handed and others right-handed?

The simple answer is that they've inherited genes for left or right-handedness, which is why handedness runs in families and identical twins are more likely to have the same handedness than dizygotic (fraternal) twins. The genes involved are a little strange, because while one makes people right-handed, the other only makes it random as to whether an individual is right or left-handed. So identical twins with the latter gene can have different handedness.

Genes are only the immediate cause of handedness. Very occasionally, "biological noise" during development, or brain or arm trauma, will override genes and cause "pathological handedness".

Why humans alone among animals are 90 per cent right-handed is a separate question, with the

"There must be advantages to left-handedness, though they have yet to be discovered"

answer going back 2 million years. This is when human brains became asymmetric and the neural equipment for the fast, precise movements for speech and finger dexterity became localised in the left hemisphere. Why it is the left hemisphere is unclear.

Yet another question is why some people are left-handed. The answer is that there must be advantages to having the genes for left-handedness,

although the advantages are still to be discovered. Finally, why aren't all animals ambidextrous? Most likely because it pays to specialise – if all practice is with just one hand, that hand will be more accomplished than a hand that only benefited from half the practice time.

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Right Hand, Left Hand (Weidenfeld
and Nicolson, 2002) – Ed*

THIS WEEK'S QUESTION

Mystery mist

I took this photograph looking east while in the Drake Passage between Chile and Antarctica. It seems to show a foggy rainbow. What caused it?

*Annette West
Lincolnshire, UK*



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