

The Birds That Learned to Open Bins

One cockatoo worked out the lid. Then the suburb next door worked it out too.

4 min read

Before you read

- **innovation** — a new behaviour or method invented by an individual
- **forage** — to search for food
- **transmit** — to pass something on from one individual to another
- **documented** — recorded with evidence rather than reported informally
- **dexterity** — skill in using the hands — or, in a bird, the beak and feet



A sulphur-crested cockatoo part-way through the sequence, holding the lid open with its beak

¹ A wheelie bin is not an easy problem. The lid is heavy, hinged at the back and smooth at the front, and it will fall shut unless something keeps it open. To get inside, you need to lift the front edge, hold it, walk your grip along the rim towards the hinge, and then push the lid over past its balance point. A person does this without thinking. A bird has to invent it.

² In the suburbs of Sydney, sulphur-crested cockatoos did.

³ The behaviour was first recorded in a small number of locations. Researchers then did something simple and effective: they asked the public. Thousands of residents across the region reported whether they had seen a cockatoo opening a bin in their street, and when. Those reports, plotted on a map over several years, showed something more interesting than the trick itself.

⁴ The behaviour spread outwards. It appeared first in a few suburbs, then in the suburbs immediately next to those, then further out — moving across the map in a pattern that matched birds learning from neighbouring birds rather than many individuals separately inventing the same solution. Cockatoos living closer to an area where the behaviour was already established were more likely to take it up.

- ⁵ That pattern is the evidence for social transmission, and it is harder to obtain than it sounds. Plenty of animals do clever things. Showing that a clever thing was *learned from another animal*, rather than worked out independently by many, requires exactly this kind of documented spread across space and time.
- ⁶ Closer observation added a second finding. The birds were not all opening bins the same way. Some gripped with the beak alone; others used a foot to hold the lid; the sequence of steps differed between areas. These regional differences in technique are what researchers mean by culture in animals — not art or belief, but a learned behaviour that varies between populations because each group copies its own neighbours.
- ⁷ The residents, meanwhile, were conducting their own experiment. Bricks were placed on lids. The cockatoos pushed them off. Sticks were wedged into the hinges. Some birds removed them. Rubber straps and weighted blocks worked better, and those defences also spread from house to house along streets — which means two populations were learning from their neighbours at the same time, in opposite directions.
- ⁸ It is worth being clear about what this does and does not show. It does not show that cockatoos understand what a bin is for, or that they are reasoning about hinges. It shows that a bird capable of dexterity and attention can acquire a multi-step foraging technique by watching another bird, and that such a technique can travel through a population without anyone teaching it deliberately.
- ⁹ That is the part worth sitting with. Nobody organised this. No cockatoo set out to instruct another. A difficult physical problem was solved once, somewhere, by one bird with time on its wings — and the solution then moved through a city of millions of people entirely by being watched.

Part A Choose the best answer

Circle the letter next to the right answer.

1. How did researchers gather most of their data on where the behaviour occurred?
 - A By fitting tracking devices to the birds
 - B By asking thousands of residents to report sightings
 - C By filming a single street for several years
 - D By counting damaged bins in each suburb
2. What pattern in the data pointed to social learning?
 - A The behaviour appeared everywhere at the same time
 - B It appeared only where food was scarcest
 - C It spread outwards from established areas into neighbouring ones
 - D It appeared only in birds that had been raised in captivity
3. What do researchers mean by 'culture' in this context?
 - A Behaviour that is taught deliberately by adults
 - B A learned behaviour that varies between populations because groups copy their neighbours
 - C Any behaviour that requires intelligence
 - D Behaviour passed on through genes rather than learning
4. Why does the writer describe the residents as 'conducting their own experiment'?
 - A They were working alongside the research team
 - B Their bin defences also spread from neighbour to neighbour
 - C They were testing which foods the birds preferred
 - D They kept written records of every sighting
5. According to paragraph 8, the research does NOT show that cockatoos
 - A can copy a multi-step technique
 - B possess dexterity and attention
 - C understand what a bin is for or reason about hinges
 - D can spread a behaviour without being taught

Part B Write your answer

Answer in two or three sentences, using evidence from the passage.

6. Why does the writer open by describing in detail how hard a bin lid is to open?

7. Explain why showing that a behaviour was learned from another animal is harder than showing that an animal is clever.

8. What did the regional differences in technique add to the researchers' conclusions?

9. In the last paragraph, what does the writer find most striking about the cockatoos' achievement?

Part C Think deeper

There is no single right answer here. Say what you think, and say why.

10. The birds and the residents were both learning from their neighbours, in opposite directions. Who do you think ends up ahead, and why?

11. Is it fair to call this behaviour ‘culture’? Argue for or against, using the definition given in paragraph 6.

12. Predict what happens in these suburbs over the next ten years. What in the passage makes you think so?

Answer key

For parents and teachers

Part A

1. **B** — By asking thousands of residents to report sightings | 2. **C** — It spread outwards from established areas into neighbouring ones | 3. **B** — A learned behaviour that varies between populations because groups copy their neighbours | 4. **B** — Their bin defences also spread from neighbour to neighbour | 5. **C** — understand what a bin is for or reason about hinges

Part B

6. It establishes that the behaviour is a genuinely difficult multi-step problem, so the reader understands that copying it is an achievement rather than an accident. Accept answers about setting up the difficulty before revealing the birds solved it.

7. Many animals do clever things independently, so cleverness alone proves nothing about copying. Proving transmission needs evidence that the behaviour spread through a population across space and time, which requires large-scale documented data.

8. Different areas used different methods — beak only, or a foot to hold the lid — which suggests each group copied its own neighbours rather than all birds finding one identical solution. This is the evidence for animal culture.

9. That nothing was organised or taught: one bird solved it once, and the solution travelled across a whole city purely by being watched. Accept answers noting the absence of any deliberate teaching.

Part C

These answers vary. Mark the reasoning, not the answer.

10. Strong answers use something from the text — that the birds removed sticks but not straps, or that both sides keep adapting — rather than simply picking a side. Prompt with: what evidence in the passage supports your guess?

11. Reward engagement with the stated definition rather than a dictionary one. Strong answers either accept it as a precise technical term or object that the word carries meanings — art, belief, meaning — that the birds do not have.

12. A strong answer builds on the pattern described — continued spread, better bin designs, the birds solving those too, or the behaviour dying out as defences improve — and names the detail it rests on. A weaker answer predicts with no link to the text.

EyeQBoost builds thinking skills in young learners through cognitive training, reading and gamified online classes. More free reading sets at eyeqboost.com/resources.