

SCIENCE

# Is ‘Instinct’ Really Keeping Flaco the Owl Alive?

Flaco lived in the Central Park Zoo for nearly his entire life. When he broke free, he somehow managed to hunt.

By Matteo Wong



Flaco, a Eurasian eagle-owl who left the Central Park Zoo after his mesh enclosure was vandalized, perches high in the branches of a conifer in Central Park in Manhattan on Thursday, Feb. 9, 2023. (Jeenah Moon / The New York Times / Redux)


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It sounds like something out of Aesop’s Fables: A captive owl escapes from the zoo into the big, scary city. Everyone doubts that he can feed and take care of himself—and he proves them wrong. That bird is Flaco, a Eurasian eagle-owl that fled the Central Park Zoo earlier this month after vandals cut his wire-mesh enclosure. He quickly won over New Yorkers’ hearts, becoming a symbol of freedom and terrorizing the park’s rodents.

Flaco has wide, piercing eyes set in a bold brow; a broad chest; and a majestic, tigerlike swirl of sienna-and-black feathers. When he curls up in the sun or closes his eyes as his ear tufts bend in the breeze, he transforms into an unfathomably fluffy rabbit. He is, as Walt Whitman once wrote of New York City’s workers, “well-form’d, beautiful-faced, looking you straight in the eyes.” He belongs to one of the world’s largest owl species, whose wings can span six feet. But despite his heft and allure, Flaco’s freedom initially seemed precarious, even unwise. He came to the zoo before he was a year old, in 2010, and his caretakers and many onlookers feared that he had never hunted before, or had forgotten how.

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But within a few days, Flaco was coughing up pellets, a sure sign that he was eating. Soon after, people saw him clutching dead rats. Citing his surprising ability to survive on his own (and the fact that he was too smart for them to catch), last Friday the zoo abandoned its efforts to recapture Flaco. News reports attributed his hunting to his “survival instincts,” “killer instincts,” and “hunting instincts”—a victory of Flaco’s “ancient” ancestry over modern confinement. But recent science suggests instinct is really a fable, a fiction we tell ourselves because it sounds nice. And it’s probably not what is allowing Flaco to survive.

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Instinct has always been a slippery concept. Charles Darwin refused to define the word, writing, “Everyone understands what is meant, when it is said that instinct impels the cuckoo to migrate and to lay its eggs in other birds’ nests.” The modern notion of instinct dates back to the 1930s, when scientists first began sustained research of animal behavior in a natural context, or ethology. *Instinct broadly* describes innate, inherited, preprogrammed behaviors in animals, and has been very influential in biology and the study of development; the 1973 Nobel Prize in Medicine went to a group of scientists known for their work on instinct. Migrating birds, baby sea turtles orient themselves toward the ocean, and even newborn humans displaying an understanding of numbers have all been described as acting on instinct.

Yet today, some researchers consider *instinct* a dirty word—a murky even lazy label that obstructs investigations into how behaviors develop. Scott Robinson, the director of Pacific Ethological Laboratories, told me that instinct is like the Cheshire Cat: It is clear upon first glance, but the closer you look, the more it blurs and fades. Ethologists and developmental psychologists complain that the term could refer to an ability present at birth, a skill learned before it is used, a trait encoded in DNA, or something else entirely—scientists don’t specify and thus don’t investigate. “Instinct is just a label, and it obscures the underlying complexity of things,” says the University of Iowa behavioral neuroscientist Mark Blumberg. “And it obscures their origins. When you say it’s instinctive, you immediately think it’s hardwired”—a description, he says, that rarely holds up to scrutiny.

In the past few decades, the attribution of several animal behaviors to instinct has been debunked. Biologists once thought that chicks responded to their mother’s calls because they naturally recognized her voice; later, scientists realized that baby birds start *learning* their species’ sounds by vocalizing while still in the egg. If the eggs were silenced, newborn chicks no longer preferred their own species’ maternal calls—researchers could even manipulate the eggs such that the babies responded to the calls of different species altogether. Rats were assumed to land on their feet after a fall thanks to instinct, until some space-reared pups fell on their back: Gravity, not genetics, appears to be responsible for self-righting. Being born on Earth is, perhaps, a sort of inheritance—but it’s not instinct.

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We don’t have many details about Flaco’s upbringing or life in captivity, and the Central Park Zoo declined an interview. It’s unclear whether another bird ever taught him to snag prey—which is what owl parents typically do in the wild, says Stephanie Ashley, the curator of birds at the Peregrine Fund. Data show that various predators raised in captivity are at higher risk of starvation, which is why sanctuaries typically teach injured or captive birds of prey to hunt before releasing them. Zoos usually feed the corpses of rodents and other animals to birds of prey. If Flaco had no concept of rat-catching before this month, instinct would be a tempting way to explain his quick mastery of it. But Ashley told me that owl hunting is a combination of instinct and study—the birds want to catch food and have to learn how.

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Maybe Flaco had some experience hunting in the wild before he entered the zoo. Maybe rats snuck into his enclosure from time to time, giving him at least some opportunity to practice hunting them. (Flaco appeared to exit the zoo with a penchant for rats—early on, zoo staff baited a trap with a white lab rat, but Flaco managed to extricate himself and flee.) Perhaps hunger, the familiar aroma of rodents, or something else about his upbringing led him to swoop down on unsuspecting vermin. Also, catching rats in New York City isn’t exactly the hardest skill for an owl to learn, even if he’s never seen it done: Rodent sightings doubled in the city in 2022. Flaco is surviving “thanks to the great abundance of rodents in Central Park,” says David Barrett, a birder who closely tracks the owl and runs a Twitter account that posts frequent updates. And Flaco’s hunting has improved with every catch—another sign of plain old learning.

Hunting is not the only skill typically described as “innate” that Flaco’s long captivity denied him. Early on, flying proved a struggle: On his first night out, according to Barrett, Flaco had to stop after four blocks and rest on the sidewalk. Even after that, he sometimes had to abort and reattempt landings. Now his range extends to the north end of the park, more than two miles from where he began—last weekend, I ventured to the park to see him, only to realize that he had left his usual perch and, based on the next day’s reports, gone exploring. He’s started to land “seemingly effortlessly, with grace,” Barrett says, all of which should improve his hunting as well.

Maybe Flaco is not blessed with innate gifts, then; perhaps he is simply a sharp and persevering student. Many New Yorkers, whether native or transplanted, have had to be students too. Your first subway ride is terrifying; by your hundredth, you know which train car is closest to your exit. You navigate Manhattan via street signs, then learn to orient yourself by the nearest skyscraper. Flaco traverses the city with aplomb, avoiding tourists and nosy neighbors. He comes to life at night and detests vermin. He’s a true New Yorker, and as anyone who lives here could tell you, that’s not something you’re born with—it’s something you learn.