

WHO YOU CALLING A

BIRDBRA

BY Ruthanne Johnson



THIS IS
FIVE-STAR
DINING OVER
HERE!



MAIN?

IF YOU'VE EVER BEEN PRESSED UP against total strangers in a crowded elevator, you may have an inkling of what life is like for egg-laying hens in factory farms around the world.

Even sharing that cramped elevator with friends would get old real fast. So imagine eight hens jammed into a battery cage, each with less than a sheet of paper's worth of space on which to live. It's a bleak, torturous existence—made all the more so when you consider the smarts, skills, and potential of these intelligent birds.

Yes, that's right: intelligent.

Scientists have just begun to scratch the surface when it comes to understanding bird brains. But already, studies have shown remarkable cognitive abilities in the world's most intensively farmed animal. Like humans, chickens recognize one another. They take cues from one another. They look to their mothers for guidance and they have a sense of time.

Heck, they've even moved on to geometry.

NOT GREEK, CHICKEN SPEAK: Chickens communicate with more than 24 vocalizations, each with a different meaning. Even before hatching, chicks are talking to their mother. Stress peeps tell her they're cold, prompting her to turn or move the egg in the nest. A purring-like sound lets her know they're comfortable. By the time they hatch, they know mom's voice.

Chickens also use different calls for aerial and land-based predators. "It's like they have a word for it," says Humane Society International's Sara Shields, who conducted her Ph.D. thesis on the behavior and welfare of broiler chickens and now advocates against factory farming. But they're selective in sounding those alarms, making fewer calls when they're alone and none in the presence of, say, a quail. "So they have to be thinking about who's there."

Hens show frustration by pacing back and forth and by voicing longer, whiny calls punctuated by staccato-like sounds—a common behavior in factory farms, especially when nesting behavior is thwarted. "In a battery cage, there's no place to nest," says Shields. Nor is there room to pace. "She'll run into her cage mates and even try to go underneath another bird." In the meat and egg industries, hens are also separated from their eggs long before they hatch. The chicks never know their mothers.

LIVE, TEACH, LEARN: Hens actively teach their young skills such as foraging and avoiding predators. When mom sends out her food call, her chicks respond by pecking at the ground. In one study, hens learned that red-colored food was good while their chicks were given blue-colored food. When the hens saw their chicks eating the wrong color, they began scratching, pecking, and vocalizing to convey the perceived error. Notes Shields: "It's one of the true teaching examples that we have data for in the animal kingdom."

Chicks also learn alarm calls from mom, an important lesson as they stray farther from her side. "Her chicks know the call and come running," says Jonathan Balcombe, an animal behavior scientist at the Humane Society Institute for Science and Policy. "And she shelters them under her wings."

CHICKEN SEE, CHICKEN DO: Chickens are sharp observational learners. In one study, chicks avoided pecking a bitter-tasting substance after observing the responses of other chicks. In another study, untrained hens pecked at colored keys for food after observing a trained hen do the same.

The HSUS's Dave Pauli, who has been rescuing chickens for 20 years, says it doesn't take long for new arrivals to fall in line. They follow other hens as he calls "bak-bak-bak" for feeding time, while another call—a rolling "B" sound, made with his tongue—corrals them into the coop. "It only takes about two days to learn the routine, not necessarily from me but also from the other chickens." When Pauli lays out deep wood ash for dust bathing, the newbies stand off to the side. "They watch the experienced hens walk in and lie down, fluff their wings out, and lie on their side to get that dust everywhere on their body." Only then will the new hens take their turn.



OLD FRIENDS, NEW FRIENDS: Chickens have a knack for remembering people, places, and things, even after months apart. The HSUS's John Goodwin remembers cleaning the mud-caked feathers of a rescued hen during a cockfighting raid in Wisconsin. Later, at the temporary shelter, she acted noticeably different than the other, more tentative hens—whenever he walked by, she'd stand at the front of her enclosure, looking up at him with wide eyes, making friendly noises. Goodwin, who works to com-



bat cockfighting in the U.S., also recalls how his grandmother's pet rooster Henry would come running when they called his name.

There's individual recognition within the flock too. As they grow into adulthood, chicks continue to look to their mothers for guidance. And, of course, there's the well-studied pecking order. Dominant roosters and hens assert their position through pecks, posturing, and vocalization. And everyone knows their place—or else.

ALBERT CHICKENSTEIN: Chickens are capable of solving complex problems, counting, and using geometry. And they start young. In one test, 5-day-old chicks showed off their ability to identify a target based on its numerical place in a series of 10. The young birds were presented with a row of identical holes, one of which contained food. When the apparatus was rotated, they were still able to return to the designated hole.

In one clicker-training program, chickens were taught to consistently peck at one of four unique geometric shapes—even as the order of shapes changed. When the target shape was removed, they waited to peck. Pauli's hens put geometry into action as they seemingly predict where grasshoppers are going to land when hunting them. "They don't run to catch the grasshopper in flight but rather run to where it's going to land," he says. "And they do this with precision."

BEST-LAID PLANS: Chickens plan ahead and take into account prior experience and knowledge of a situation. They can also anticipate the future and exhibit self-control, as shown in one study in which chickens sacrificed an immediate reward for a food jackpot if they waited to eat.

In a display called "tidbitting," roosters vocalize while picking up and dropping food to alert hens that they've found something good to eat, thus elevating their status. "Boy, do those hens come running," says Balcombe, with a laugh. "I've seen one or two hens almost trip over themselves trying to get there first." But if the males are going to build credit, the hens "have to remember who did what and how often." Sometimes roosters phantom tidbit *after* they've eaten the morsel. "It's a way for a male to build credit with a hen without losing any food for himself." Of course, he has to be far enough away from the hen so she doesn't catch on. And he can't be too greedy, since hens keep tally.

Using deception, subordinate males will quietly tidbit to attract females without drawing attention from the dominant male. In a greater example of premeditated deceit, subordinates sometimes sound alarm calls when they're hidden and the dominant rooster is exposed.

CELESTIAL NAVIGATORS: Chickens can use the sun as a compass. This ability helps them locate food, water, and safe perches and gives them a keen sense of time. After being taught to wait six minutes for food, study groups of chickens were consistently there pecking at the feeder around the elapsed time. At the Cleveland Amory Black Beauty Ranch in Texas, operated by HSUS affiliate The Fund for Animals, director of operations Arturo Padron remembers how 600 broiler chicks rescued from a factory farm after Hurricane Katrina recognized their primary caregiver. If she was even a little late for their feeding, they cheeped madly until their feeders were full.

But because broiler chickens are genetically selected to grow obese very quickly—before being killed for their meat—none of the chicks survived a year. Their bodies became too big to roam outside or enjoy the perch that staff had built inside their coop. "They were so big and their little legs were getting all deformed," Padron remembers. "They couldn't use them anymore."

ON THE iPad: Watch clicker-trained chickens show off their skills.

