

#HISTORY

Potshard
Inscriptions
of Keeladi



What can a few fragments of pottery tell us about how people wrote 5000 years ago? Quite a lot, as it turns out. The Keeladi excavations of 2015 pointed to the existence of a literate ancient Tamil civilisation that could go as far back as 800 BCE. Among the most significant finds was a series of potshards with different inscriptions, which offered many fascinating insights about the evolution of scripts in India.

Is Tamil Brahmi older than the Brahmi script? Could the Indus Valley script, which was in use in north-western India over 4500 years ago, be related to Tamil Brahmi, which was used in South India? Which are the oldest dated inscriptions in India? What languages and scripts are those inscriptions in? In 2015, archaeologists excavated



While some of the inscriptions were in Tamil Brahmi, the oldest potshards had graffiti marks!



● Russell McLendon

Intelligence runs in the crow family, a diverse group of more than 120 bird species. And, as with most geniuses, crows and their relatives tend to be misunderstood. Known as corvids, this family of birds includes crows, ravens, rooks, jays, jackdaws, magpies, treepies, nutcrackers, and choughs. They range from the 1-ounce dwarf jay, a small forest bird found only in Mexico, to the 3-pound common raven, a wily opportunist found across the Northern Hemisphere.

Corvids are incredibly clever overall, with the largest brain-to-body-size ratios of any bird, but those in the genus *Corvus* tend to be especially brainy. This genus includes the crows, ravens, rooks, and jackdaws, accounting for about a third of all corvid species. Many of these have a brain-to-body-size ratio (or 'encephalization quotient') you'd expect from an ape, not a bird. In fact, according to a study published in the journal *Current Biology*, the crow brain is the same relative size as the chimpanzee brain.

Humans have long recognized the craftiness of crows and ravens, as seen in centuries of folklore, casting the birds as thieves, tricksters, problem-solvers, wise advisors to gods, or even deities themselves. Yet, we also tend to stereotype these birds, overlooking many of their complexities to brand them as

spooky, troublesome, or outright nefarious. Fortunately, our appreciation of their intelligence has soared in recent years, thanks to research exploring what corvids can do with all that brainpower. Below is just a sampling of what we've learned about their mental and social lives, focusing mainly on crows but also including ravens and other relatives.

Crows have shrewd ways to get food. Crows tend to be opportunistic and creative, commonly exploiting new food sources or adopting new feeding strategies to make their lives easier. The American crow is known to catch its own fish, for example, in some cases, even using bread or other food as bait to lure fish closer.

At the same time, this species often steals food from other animals, sometimes even secretly following victims back to their nests or food caches. In one case, a group of American crows was seen distracting a river otter so that they could steal its fish, according to the Cornell Lab of Ornithology. Another group followed common mergansers to intercept minnows that the ducks had been chasing into shallow water.

Many crows use gravity and the ground by dropping snails and hard-shelled nuts from the air while flying. This is done by other birds, too, but some crows seem to have taken this a few steps further. Crows in Japan, for instance, place walnuts on roads so that cars will crush the shells, wait for the traffic light to change, and then safely collect the opened nuts.

Crows Don't Just Use Tools; They Also Make Them

In the early 1990s, primatologist Jane Goodall shocked the world with her discovery that wild chimpanzees use twigs as tools to catch termites, debunking the idea that humans are the only tool-using species. Tool use requires a certain level of cognitive sophistication, but we now know plenty of other animals also use tools in the wild,

not just our fellow primates. In fact, one of the most studied examples of non-primate tool use comes from a corvid: the New Caledonian crow. Many corvids use tools, but New Caledonian crows are especially advanced. Like chimps, they use sticks or other plant matter to fish insects out of crevices. That alone is impressive, especially



Crows make tools, hold grudges and solve puzzles

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Crows Can Solve Puzzles on Par with Human Kids

In Aesop's Fable 'The Crow and the Pitcher,' a thirsty crow encounters a pitcher with a little water but is initially thwarted by the low water level and the bottle's narrow neck. Then, the crow drops pebbles into the pitcher and raises the water level high enough to drink.

Not only has research verified that crows can do this, but it shows they can pass the water-displacement test at a level similar to human children between the ages of 5 and 7. Crows have conquered a variety of other convoluted tests, too. The BBC even showed a crow solving an eight-step puzzle in its series *Inside the Animal Mind*. Crows can also plan their tool use, according to one study in the journal *Current Biology*, which found that crows could solve a metatool problem, when each step was out of sight of the others, planning three behaviours into the future. The birds showed an ability to 'mentally represent the goals and sub-goals of metatool problems,' the researchers wrote, and even successfully ignored an extra tool planted in their path to distract them.

#CROWS

Crows Hold Funerals for Their Dead

Crows are famous for holding funerals, when one of their kind has died. It might be a lone individual or a group of crows, known as a murder, of course, and it may be solemnly quiet or cacophonous. In some cases, the crows may keep a vigil over the fallen bird for days. Could they be mourning? Maybe, explains Kaeli Swift, a postdoctoral researcher and corvid expert at the University of Washington. There is 'little doubt that they have emotional intelligence,' testing this possibility remains scientifically problematic, since 'there's still no way we can truly know what's happening on an emotional level in an animal's head,' she says.

So, without necessarily ruling out grief, Swift and other researchers have focused more on 'danger learning' as a likely



motivator for corvid funerals. "If I were to find a dead person in the woods, I might be feeling sad, but I'd also be alarmed and likely looking for the cause of death to make sure I'm not next," Swift writes. "Perhaps, the crows are doing the same thing, looking for the source of danger and remembering key elements of the experience that will help keep them safe in the future."

Crows Gossip, Hold Grudges, and Know Who You Are

Several kinds of corvids have demonstrated a knack for recognizing human faces. Magpies and ravens, for example, are known to scold specific researchers who have gotten too close to their nests in the past, regardless of what the researchers wear. Some of the best evidence of this ability comes from crows in Washington state, where Swift and her colleagues have extensively tested the birds' reactions to human faces they've learned to distrust.

Led by John Marzluff, a professor of Wildlife Science at the University of Washington, the testing was born from the realization that crows seem to hold grudges against specific people who'd netted and banded them for research. Researchers began wearing rubber caveman masks when they did this, revealing how the crows were identifying their enemies. Crows scolded and mobbed anyone who wore the caveman mask regardless of who was underneath. In later tests, researchers achieved a similar effect by wearing masks while holding a dead (taxidermied) crow, which resulted in crows pestering future wearers of those same masks. "The interesting part was that not a whole lot mattered except the face," Marzluff told the National Wildlife Federation (NWF).

Lots of other animals can also recognize human faces but crows still stand apart, both for the length of their memories and for how they

share information among themselves. Years after the study began, crows 'continue to harangue the banding mask,' the NWF explains, 'even though they see it only twice a year for a few hours at a time.'

This animosity isn't just from crows who saw the original banding event. The percentage of birds scolding and mobbing the caveman mask grew over time, roughly doubling within seven years, even though most had never been banded and were unlikely to have personally witnessed the mask doing anything offensive. Some were even young crows not born yet when the grudge began. The crows are apparently transmitting important information, the identity of a seemingly dangerous person, to their families and companions.

As Kat McGowan wrote for Audon Magazine in 2016, nearly all the birds originally trapped by the caveman are probably dead by now, yet 'the legend of Seattle's Great Crow Satan still grows.'

Learning to identify humans could be a valuable skill for urban crows since some of us are dangerous, some neutral, and some helpful. Wild crows seem largely indifferent to the faces of people who haven't wronged them and can also form positive relationships with us, like the girl in Seattle who famously received a collection of trinkets from the crows she'd been feeding.

Appreciating Diversity

Ulticulturalism Day (27 June) is a vibrant celebration of the rich diversity found within communities. It highlights the blend of cultures, languages, and traditions that make society unique. This day encourages everyone to appreciate differences, to create more inclusive and understanding world. Through this celebration, people come together, recognizing the beauty of cultural diversity and the strength it brings to daily life! The day also raises awareness of the contributions made by various cultural groups, enriching the community in countless ways. By appreciating these diverse traditions, people learn to respect and value each other's differences, fostering greater acceptance and peace.



Young Crows May Stay Home for a While to Serve as 'Helpers'



American crows start to nest in early spring, building their nests from sticks and lining them with soft materials like grass, fur, or feathers. (They may also build decoy nests if they think someone suspicious is watching them.) Young crows will remain dependent on their parents for a couple of months after they fledge, but they also tend to stay near their family for a while longer, even after moving out of the nest. These chicks are still fiercely defended by their parents, Swift writes, creating a sort of extended adolescence that allows them time and energy for play behaviours, which might be important for their development and cultural learning.

Young crows will eventually start spending less time with their parents and more time with larger flocks, and face a decision as winter set in. "They can either take off to 'float' before finding a mate and establishing a territory of their own," Swift writes, "or remain on their home turf and act as a 'helper' for next year's brood." The latter is cooperative breeding, in which more than two individuals help care for offspring in a single brood.

In most American crow populations, older offspring continue to help their parents raise new chicks for a few years, according to the Cornell Lab. A crow family may include as many as 15 individuals, with offspring from five different years all pitching in to help. It's unclear why this evolved, Swift writes, but it may help delay the dispersal of young crows when there isn't enough open territory

nearby for them to claim. It's common for people to vilify crows, often focusing on unwanted behaviour but overlooking more reliable or redeeming qualities. The American crow, for one, has been the subject of extermination attempts in the past, including the use of dynamite on large winter roosts. Those efforts ultimately failed, however, and thanks largely to its intelligence and adaptability, the American crow is now more common than ever across a range of habitats, including farms, towns, and big cities.

Other corvids have similarly adjusted to or even capitalized on afforestation, but being intelligent is no guarantee that these birds are safe from us. The Hawaiian crow, for instance, is a smart corvid with a penchant for tool use, yet it was declared extinct in the wild in 2002 after being wiped out by a combo of disease, invasive predators, habitat loss, and human persecution. Fortunately, scientists saved enough birds to start a successful captive-breeding program and reintroduced the species into the wild.

Crows sometimes raid farms and gardens, but any damage they cause may be offset by ecological benefits like seed dispersal and eating pest insects. Plus, while any species has an inherent right to exist, we're lucky to have brainiacs like corvids living among us. They help us learn more about our own intelligence and remind us how much we still have in common with wildlife around us.

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#WHODUNNIT

Language evolves, but at what cost?

Are we destroying English Grammar in the name of Inclusivity?

We find ourselves at the crossroads of tradition and transformation, where centuries-old grammatical rules are meeting the growing demands for inclusion and representation. This isn't just a linguistic debate, it's a cultural one. As society becomes more aware of identity, equity, and social justice, our language is changing too. But with each new change, a question echoes louder: Are we enriching the English language, or are we slowly dismantling its structure? Shashi Tharoor, a masterful wordsmith and advocate for linguistic elegance, puts it plainly: Should grammar adapt to meet the needs of an inclusive



world, or does this come at the expense of clarity, precision, and the very rules that make language intelligible?

The Case for Inclusivity

At the heart of this linguistic shift is the desire to be seen and acknowledged. The use of singular 'they' has become common, used to respect people who don't identify strictly as male or female. Neopronouns like xe/xem or ze/zir have entered the conversation, and many institutions are now opting for gender-neutral terms such as chairperson instead of chairman, or humankind instead of mankind. These changes are more than cos-

metic; they represent a deep cultural reckoning with the way language has historically excluded certain groups.

Supporters argue that language must evolve to reflect social progress. After all, English itself has always been fluid. What we consider 'proper grammar' today was different a century ago, and it will continue changing in the decades ahead. Making space for more inclusive language is not only ethical, it's inevitable.

The Case for Caution

But not everyone is on board. Critics argue that in our eagerness to make language more inclusive, we risk making it less coherent. Grammar, they say, isn't just about rules for rules' sake, it's the structure that allows us to communicate ideas clearly and effectively. When we bend or discard those rules, especially in formal writing or education, are we empowering expression or muddling it?

For instance, using plural forms like 'they' to refer to singular individuals can confuse mean-

ing in certain contexts. Introducing unfamiliar pronouns might be well-intentioned but can also alienate those who struggle to keep up with rapidly changing linguistic norms.

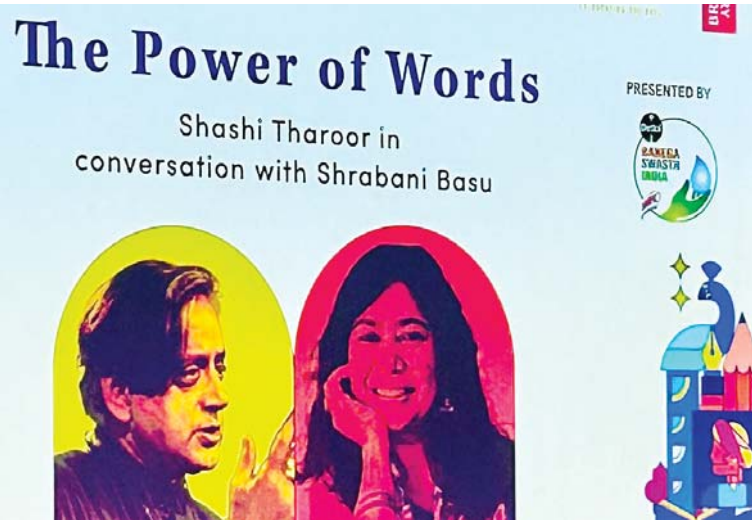
Some educators express concern that students are no longer being taught grammar with the same rigour. Others fear that critiquing poor grammar is being wrongly equated with being insensitive or exclusionary. If everything becomes acceptable in the name of inclusivity, does the language lose its standards?

Finding the Middle Ground

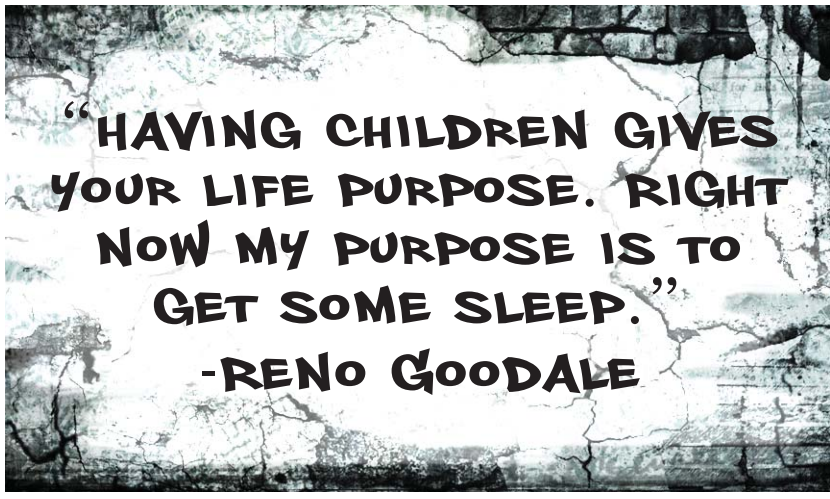
This isn't a zero-sum game. Language can be both inclusive and precise, if we're intentional about how we use it. It may be less about abandoning grammar and more about expanding it. Rather than seeing inclusivity as a threat to linguistic structure, we might see it as an opportunity to refine how we teach and under-

stand English in a way that respects both clarity and compassion.

After all, English has always been a borrower, a shape-shifter. From Shakespeare's inventions to tech-era slang, it has constantly evolved. The current push for inclusivity is just the latest chapter in its long story.



THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman