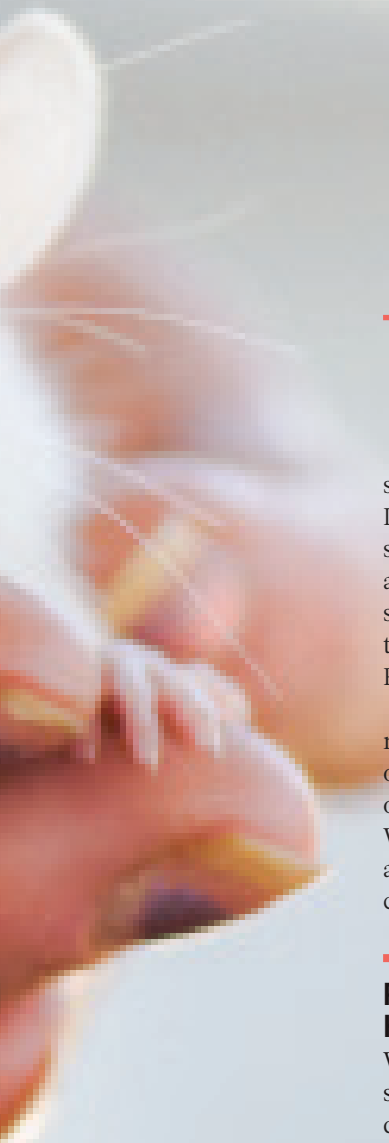
In human terms, rats are what you might call prejudiced, a state created by upbringing, not genes.

COMPASSION

The Bystander Effect

To understand the roots of kindness, look to animals from dolphins to rats **By Temma Ehrenfeld**



The video of George Floyd pleading "I can't breathe," slowly dying with a Minneapolis police officer's shoe pressed into his neck, sparked protest around the world. In that video, you see bystanders shouting, trying hard to save Floyd, and three other police officers who stand by. It seemed so inhuman, those officers doing nothing despite Floyd's pleas.

Yes, it's a normal human response to help. But the response of the officers, linked to cues from other officers, is natural, too. When we look for the roots of our altruism in animal behavior, we can understand both reactions.

Rats Will Step Up, But Have Limits Like Us

We may think of lab rats as simple. But just weeks after Floyd's death, the prestigious American Association for the Advancement of Science coincidentally published a study from the University of Chicago that showed rats playing out what we see in the Floyd video.

The scientists began their study, called "The bystander effect in rats," with another news story in mind, the tale of Catherine ("Kitty") Genovese. When Genovese was murdered on a crowded residential street in Queens, the *New York Times* reported that more than 35 neighbors heard or witnessed her murder and not a single one intervened or called the police. That wasn't true, as it turned out. But the tale inspired research with a much-publicized conclusion, "the bystander effect": when we see someone in danger we're more likely to help if alone than if among other bystanders who aren't helping.

In the original bystander-effect studies, in the aftermath of that event, the helpfulness of human volunteers was tested while they were unknowingly in the company of secret members of the research team, so-called "confederates" who intentionally did not lift a finger themselves. The Chicago

team decided to duplicate that set-up, using as their confederate rats drugged so they were unable to help. In their experiment, a rat, seeing another rat trapped behind a door, had a chance to helpfully open the door. Were they more helpful if they were paired with a rat too drugged to help, two drugged rats, one potentially helpful non-drugged rat, or two non-drugged rats?

It turned out that rats paired with drugged unhelpful rats were less likely to help than they would if alone--but only if the non-helpers were a familiar kind of rat. Like the police officers in the Floyd video—and cliquish people everywhere--rats follow the cues of their own kind, University of Chicago neurobiologist Peggy Mason explains.

Familiarity of the victim matters, too. Albino rats, for instance, will help Albino rats but not black-caped rats —unless they've spent two weeks living with a black-caped rat; in that scenario, an Albino rat will help a black rat, too.

"This is entirely an environmental issue," Mason says. "When we saw that we could make one rat help another just by who they live with, we took white pups on the day they were born and transferred them to a black-caped mother, and upon weaning they got housed with black-caped rats. As adults, they helped black-caped rats and didn't help albinos."

Evolution Created Social Species That Can Lend a Helping Hand

It's easy to see why we evolved to help the circle of individuals we know well. Social animals depend on each other for survival, and conflict can threaten the group. But scientists studying the aftermath of fights are finding a widening circle of help, with bystanders reaching out even when they don't know

Elephants are so attuned to their group's suffering they will mourn another's passing for days and weeks on end.

Dolphins are smart enough to alter their surroundings for the good and form complex social groups.

Dolphins pass down behaviors and practices like helping others from one generation to the next.

the victim as well. For instance after age two, human children will soothe others after peer aggression. Consoling behavior has been documented in non-human primates, too: chimps, bonobos, mountain gorillas, Western lowland gorillas and Tonkean macaques. As in humans, a loving childhood helps. Young mother-reared bonobos are more likely to console others than young orphans of the same age. And victims benefit too: A soothed ape victim will spend less time scratching herself, a sign of anxiety and stress.

The Special Kindness of Dolphins

Elephants, wolves, ravens and voles also console their friends. This spring, a study of bottlenose dolphins in captivity at two sites in Japan concluded that bystanders of that species try to soothe the tension in both victims and aggressors , generally by issuing whistles, for the sake of future peace. In particular, after a fight, bystander bottlenose dolphins often approach both antagonists, rubbing against each of them or swimming in synchrony to help calm everyone down. A female might swim with her body in contact with another female, especially in groups with many males, apparently to lower the tension. Imagine if you had a scrap in a bar crowded with men; afterwards, your sister might stand extra-close and to lend a steady hand and calm you down.

Dolphins don't abandon their own. When one dolphin sank in the water and emitted a bubble stream, a sign of distress, other dolphins helped her to swim and breathe.

Of course, fights don't always end smoothly. Victims frequently attack aggressors, and dolphins are political animals—researchers found that bystanders were more likely to affiliate with the aggressor when there was no reconciliation in sight. Dolphins are also strategic: When they act to stanch a fight, they do, in fact, reduce the chance of more conflict up the road.

Overall, animal studies support what we know about humans: animals in social species care enough to soothe each other, to help each other survive. In fact, acrosss a host of species, the idea of the unhelpful bystander and the useless crowd has been debunked. In 2020, researchers analyzed 219 human conflicts recorded on surveillance cameras in Amsterdam, Lancaster, and Cape Town. The videos showed that bystanders intervened in the incidents nine times out of ten, and that the chance that an individual would get help increased by 10 percent for each additional bystander.

This turned out to be true, as well, for the Chicago rats. They were more likely to help when in a pair with a non-drugged potentially helpful rat and even more so in a trio. And if a rat saw other rats helping, it was more likely to help on another occasion, too. We're social, so we conform. Peer influence can work for good or ill. But it certainly can reinforce helping. That's why, in our human world, viral videos of injustice call up crowds of people of all colors flooding the streets to protest in hope of making a better world.

Rats are Good

I used to say I and me.
Now it's us.
Now it's we.

Michael Jackson never sounded sweeter than when he sang about a pet rat, Ben. Don't act surprise: Rats are worthy of friendship. Taught to press a lever to get food, a rat will hold back and give up the meal if they know their action will deliver an electrical shock to another rat they can see. They'll press a bar to lower a rat suspended uncomfortably in mid-air. They share: If they see a cage mate trapped in a restrainer and chocolate chips in a second restrainer, they'll open both rand share the chocolate.

Bonding chemicals seem to be at work. Another rodent, prairie voles—the monogamous kind of vole that comes up in explanations of human romantic love—offer much more grooming to a cage mate that has suffered a distress. In fact, they match the cage mate's anxiety-related behavior and stress chemicals, in a way that suggests deep physiological empathy. But when the scientists blocked their receptors for oxytocin, the famous bonding chemical, they stopped being so attentive.

Feeling stress when we see others suffer can also work against helping. A quarter of all rats never help. Mason wondered if they were indifferent, like "psychopaths," she said. "But the other possibility is that they were overwhelmed by their own distress." When her team tested this question, she found that unhelpful rats are especially stressed out, compared to helpful ones. As any social worker will tell you, it takes training to avoid being overwhelmed by others' distress. Her team found no indifferent rats at all.

Prarie voles are deeply attuned to each other as long as their brains are awash in the hormones of relationship and love.