



Why are women more disgusted than men? It may help them live longer

In primates ranging from gorillas to macaques to people, females are more likely to get "the ick"—and researchers think there's a surprising benefit.

By Elizabeth Anne Brown
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It's a sitcom trope: The rascally kid does something gross, like bring home a flea-bitten puppy or track mud into the house. Dad doesn't see the harm, but flustered mom launches the full decontamination protocol. Cue the laugh track.

Turns out there's science beyond the stereotype: In several species of primates, including humans, researchers have found that adult females are more sensitive to grossness than males.

For instance, female [gray mouse lemurs](#) and [Japanese macaques](#) are more likely than males to turn up their noses at contaminated food, while female [western lowland gorillas](#) and [olive baboons](#) tend to avoid fellow animals with skin infections.

The reason for such fastidiousness? It can lower the females' incidence of disease, from parasitic infections to STDs, scientists say. ([Read why humans are hardwired to feel disgust.](#))

[Cécile Sarabian](#), a cognitive ecologist at the Institute for Advanced Study in Toulouse, France, goes a step further: She suggests that the cumulative effects of female disgust—being choosier about what to eat and minimizing exposure to infection—may be one of the reasons why female primates live longer than males.

According to Sarabian, there's a protective power to "yuck."

Fastidious females get less sick

As a graduate student at Kyoto University in the 2010s, Sarabian observed Japanese macaques as they foraged for food on the island of Kojima.

She quickly realized that males and females went about meal prep quite differently: A female macaque will generally wipe off acorns foraged from the leaf litter before popping them in her mouth, for example. ([Read how Japanese macaques bathe in hot water to lower stress.](#))

On the flip side, there seems to be “less precaution, even less investigation among males,” which are more likely to gobble food down having barely looked at it, she says.

Sarabian later discovered that Kojima females weren’t just being finicky—[they were less likely to be infected with geohelminth](#), an intestinal parasite transmitted through feces, than were males. Scientists know little about how these widespread infections affect macaque health, but there’s evidence that females treated for the disease have higher body weights and reproductive success, Sarabian says.

The ick factor has its limits

At the time, it was a striking idea that disgust could lead to a form of hygiene in primates.

In the years since, more examples have cropped up. Female olive [baboons](#) in Tanzania will [refuse to mate](#) with males infected with treponema, the contagious bacteria that causes syphilis in humans and creates “very nasty and disgusting” lesions around a baboon’s behind, she says.

Female [western lowland gorillas](#) in the Republic of the Congo take more drastic measures. When a male develops pale blotches on its face, another sign of treponema infection, some females [abandon the troop](#) in search of a healthier population.

In addition to observing wild behavior, researchers also conduct experiments in the field using a “universal disgust elicitor”—usually poop—to observe the limits of disgust. Avoiding infection risk has costs, after all—turning up your nose due to contamination may mean you miss a meal.

In one experiment, Sarabian offered different foods placed atop piles of poop to the Kojima macaques. While a poo-plated grain of wheat seemed appetizing to about one in three macaques, half a peanut—which has 16 times as many calories—was eaten in 100 percent of trials, including for females.

“Then there’s no avoidance for anyone. It’s too high value,” Sarabian says.

Modernity breeds disgust

Studying disgust in humans requires a little more subtlety—it's frowned upon to offer food with poop on it to people, even in an experimental context.

Instead, researchers show volunteers pictures of potentially gross scenes or ask them to imagine scenarios, “like stepping in feces with bare feet, or finding a worm in your food, or eating raw chicken, or seeing a rat in your kitchen”—and rate their disgust on a numerical scale, explains [Tara Cepen Robins](#), a biological anthropologist at the University of Colorado, Colorado Springs.

At least in Western societies, women score higher than men on these measures of disgust. But can disgust be protective for human health, too?

Robins and her team [found](#) that among the [Shuar](#), an Indigenous group in Ecuador, those who rated Robins' descriptions of scenes as less disgusting were more likely to be infected with bacteria and viruses. (*[There are more viruses than stars in the universe. Why are only some dangerous?](#)*)

The study of 75 people didn't find a difference between sexes, but Robins suspects that's due to the wide age range among the participants. A generational shift that has led many Shuar to adopt a more “modern” lifestyle—such as swapping dirt floors for concrete and improving sanitation in cooking and attaining clean water—has also made them more conscious about pathogens.

“The more you can control your environment, basically, the more disgusted you are,” Robins says.

Overall, the disgust response seems to act as an advance guard for the primate immune system. “This is what disgust is all about—we're hardwired to be grossed out by things that have harmed people in the past,” Robins explains.

Protecting offspring

Female cautiousness around potential sources of infection would “make sense from an evolutionary perspective,” Sarabian says, as “we females are the ones giving birth [and] caring for the offspring.”

Not only do childbirth and rearing make infection more likely for mothers, but the stakes are higher, since females can transmit illnesses to their offspring.

Some researchers theorize that disgust is further dialed up when we're most vulnerable to infection—for example, in early pregnancy when the immune system is suppressed to avoid “friendly fire” on the developing embryo. ([*Learn how pregnancy permanently changes your brain.*](#))

A [*recent study*](#) that examined disgust sensitivity during a woman's first trimester of pregnancy found that the more grossed out the mothers-to-be were by things like expired milk and cockroaches, the less evidence of immune response the researchers found circulating in their blood.

No matter how much we intellectualize nasty phenomena, we can't escape it—after more than a decade of exposure to poo, bodily fluids, and other disgusting stimuli, Sarabian says she's more appalled than ever.

“I'm just much more aware of the things that may put me at risk in my environment,” she says. “Disgust isn't an emotion that you can get rid of very easily.”