

ScienceNews

MAGAZINE OF THE SOCIETY FOR SCIENCE & THE PUBLIC

News: Animals, Evolution

Mouse mates with similar personalities start families faster

Anxious paired with anxious, nonchalant with nonchalant — it's the match that matters

By Susan Milius 8:00am, April 6, 2015



MOUSE MATES Pairs of mice from a mound-building species bred readily — or not-so-readily — in lab setups depending on how much his personality differed from hers.

Who knows whether opposites attract among mice? But similars do best when it comes to making a fast start on a family.

Among mound-building mice (*Mus spicilegus*), the more alike mates' personalities were, the more likely they were to start having babies soon after being caged together in the lab, says Heiko Rödel of the University of Paris. Rödel and colleagues scored the animals' similarities based on tests of anxiety, the researchers [explain](#) in the upcoming May issue of *Animal Behaviour*.

"Ours is the first study in mammals on personality matching and reproductive parameters," Rödel says.

How couples' quirks mesh, or don't, as they reproduce could be an underappreciated factor in how a population fares and why it maintains such wide variety in personalities.

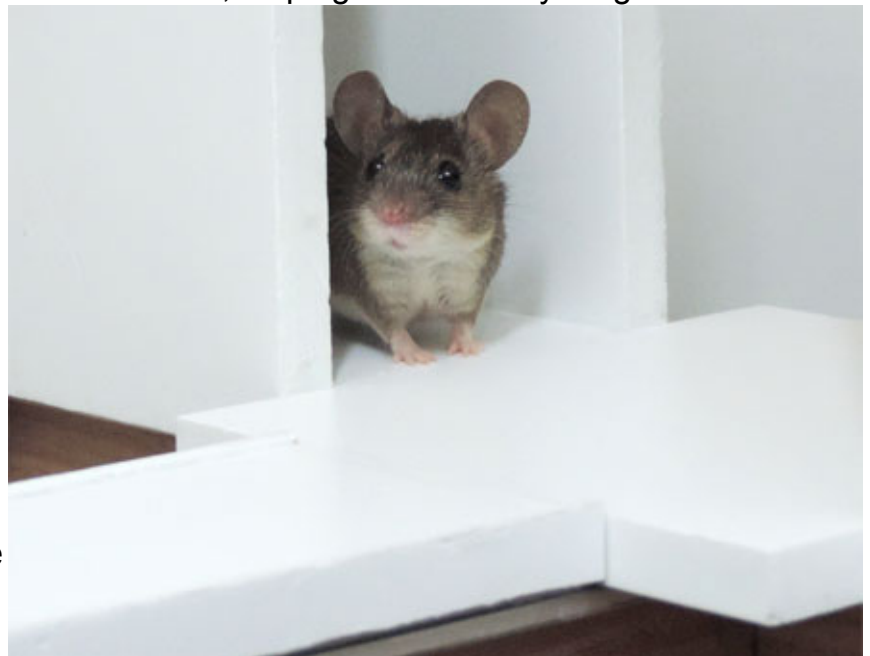
When it comes to nonhuman animals, Rödel describes “personality” as the kind of basic tendency — such as shy or bold, aggressive or cringing — that an individual shows again and again in different situations. These consistent tendencies have turned up in creatures from pea aphids to zebra finches. And tests have found that personality traits are to some degree inherited.

In looking at how animal personalities interact when couples pair up, previous research has flourished among birds and fish. In bird species, couples with matching personalities tend to have offspring that are better in some way, such as weight, than mismatched couples do, Rödel says.

With mice, he and his colleagues looked at a different kind of evolutionary advantage: how readily the animals started breeding. The researchers focused on the species known as mound-building mice, named for the high heaps of plants and soil that young mice pile up in the fall and take shelter under without hibernating during the winter. The youngsters emerge from their bunkers in spring and start breeding quickly. They live only a single breeding season, so a speedy start could help them have as many offspring as possible — and even allow their offspring to have offspring. Males stay with one female, helping to raise the young.

Researchers tested mice for anxiety on two occasions to see how consistent individuals’ inclinations were. Overall, mice reacted similarly over time, sticking to elevated walkways protected by high walls, for example, or venturing along exposed ones.

Then researchers paired males and females randomly. At the end of three months, couples with very similar personalities were roughly twice as likely to have offspring as very mismatched couples. Pairs intermediate in similarity ranked in between.



TESTING, TESTING A setup for checking mouse anxiety let animals explore elevated walkways connected to make a plus sign. The more-anxious mice favored the walkways with high walls (exit from a cozy zone shown) over walk-the-plank arms with no sides.
Marilyn Rangassamy

Just why this happens isn’t clear from this kind of test. But Rödel says perhaps there’s less chronic stress in raising a family with a like-minded mate. Or maybe couples with similar inclinations coordinate better for more efficient child care in such tasks as feeding and monitoring the young.

The study may also help explain a conundrum: Why is there such variety in personalities instead of just the winner types? A baby bonus for closely matched couples, however, could “help to maintain personality variation in the long run,” says Sasha Dall of the University of Exeter in England, who has studied variety in animal personality. The mice in the lab had no say in picking partners, and biologists don’t know if personalities matter when mice flirt in the wild. But if like prefers like, and they pass along the traits, there’s no one winner personality among the new babies. Any animal that finds a similar mate, from the steely-nerved to the scaredy-mouse ones, can start the next generation with plenty of descendants.

Citations

M. Rangassamy et al. Similarity of personalities speeds up reproduction in pairs of a monogamous rodent. *Animal Behaviour*. Vol. 103, May 2015, p. 7. doi: 10.1016/j.anbehav.2015.02.007.

Further Reading

W. Schuett, T. Tregenza and S.R.X. Dall. Sexual selection and animal personality. *Biological Reviews*. Vol.85, May 2010, p. 217. doi: 10.1111/j.1469-185X.2009.00101.x.

S. Zielinski. Wild Things blog: Fertile hermit crabs turn shy. *Science News Online*. Published February 13, 2015.

S. Milius. Cockroach personalities can speed or slow group decisions. *Science News Online*. Published February 3, 2015.

S. Milius. Mixed results. *Science News*. Vol. 181, April 21, 2012, p. 26.

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