

Too many sisters affect male sexuality

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Growing up with lots of sisters makes a man less sexy. For rats, anyway. A new study published in *Psychological Science*, a journal of the Association for Psychological Science, finds that the sex ratio of a male rat's family when he's growing up influences both his own sexual behavior and how female rats respond to him.

David Crews, a psychobiologist at the University of Texas at Austin, is interested in how early life affects behavior later. This is an area that has received a lot of attention recently, such as research showing that the position of a fetus in the [uterus](#) matters. For example, a female fetus that spends the [pregnancy](#) sandwiched between two brothers grows up to be more masculinized, because she's been exposed to their hormones. Other researchers have found that sex ratio of the litter itself affects adult behavior. But Crews wanted to separate the effects of life before and after birth. "Life is a continuous process: you're a fetus, then you're born into a family. Each one of these periods can be important," he says—and they don't necessarily have the same effects.

When rat pups were born, the researchers counted the number of males and females in each litter to determine the sex ratio in the womb. Then they reassembled litters in three ways: so the litters were balanced between males and females, strongly male-biased, or strongly female-biased. Then they observed the mother's behaviors toward their pups and, once the males grew up, tested them to see how they behaved with sexy female rats.

The researchers found no effects of the sex ratio in the uterus. But they

did find differences in behavior based on the kind of litter in which the males grew up. When males who were raised with a lot of sisters were presented with receptive female rats, they spent less time mounting them than did male rats that were raised in male-biased litters or in balanced families. But they penetrated the female rats and ejaculated just as much as did the other males. This means "the males are more efficient at mating," Crews says.

The males may be compensating for the fact that they're less attractive to females. You can tell this by watching the females—if they want to mate with a male, they'll do a move called a dart-hop, says Crews, and "they wiggle their ears. It drives males nuts." The females did this less when they were with a male rat that had grown up in a female-biased litter. Crews carried out the study with Cynthia B. de Medeiros, Stephanie L. Rees, Maheleth Llinas, and Alison S. Fleming of the University of Toronto at Mississauga.

These were rats, but the results have implications for humans, too, Crews says. "It tells you that families are important—how many brothers and sisters you have, and the interaction among those individuals." Families are particularly important in shaping personalities, he says. The environment where you were raised "doesn't determine personality, but it helps to shape it."

Provided by Association for Psychological Science

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