
July 10, 2007

Rat to Rat, Kindness Takes Hold

By **NICHOLAS BAKALAR**

Rats may be more caring and selfless than their reputation suggests. Or at least they can be very kind to each other, even to rats they have never met before.

Swiss researchers put pairs of female rats — they were littermates — in a cage, separating them with a wire mesh. In one half of the cage, a rat could pull a lever attached to a baited tray that would deliver food to her sister, but not to herself. Each rat was trained in alternate sessions, first as a recipient of food, then as a provider. The sisters learned to cooperate, and they pulled significantly more often when their littermate was present than when the other half of the cage was empty.

Then the researchers put rats who had recently been assisted by their partners, and rats who had not recently been helped, in with unfamiliar and unrelated rats. Those who had recently been helped were about 21 percent more likely to pull the lever for the new partner.

This was not just ordinary operant conditioning or reinforcement, the researchers maintain, because the rats were never rewarded for their own behavior, only that of others. Because the rats were unfamiliar and unrelated, there was no family interaction involved. The only plausible explanation, they believe, is that the rats had developed what they call generalized reciprocity — that is, they were generous even with an unknown partner because another rat had just been kind to them.

The study's lead author, Claudia Rutte, a behavioral ecologist at the University of Bern in Switzerland, warned against drawing conclusions about humans from work with rats. "We're interested in the evolution of cooperation," she said, "but our research is about animals, really, not people."

Still, [the paper](#), published in the July issue of PLoS Biology, cites previous research showing that humans act the same way — people who have been helped in some way are more likely to help others immediately afterward.

Incidentally, these rats were not the usual cute, pink-eyed white lab rats. They were bred from wild *Rattus norvegicus* — the brown or gray Norway rat depressingly familiar to residents of many American cities.

Is it time to stop using the word "rat" as an insult? Maybe. Apparently even a nasty-looking rat can be possessed of sterling character.

[Copyright 2007 The New York Times Company](#)

[Privacy Policy](#) | [Search](#) | [Corrections](#) | [RSS](#) | [First Look](#) | [Help](#) | [Contact Us](#) | [Work for Us](#) | [Site Map](#)
