

2011

## The Benevolence of *Rattus norvegicus*

Timothy Fernandez

Follow this and additional works at: <https://digitalcommons.library.uab.edu/inquiro>



Part of the [Higher Education Commons](#)

---

### Recommended Citation

Fernandez, Timothy (2011) "The Benevolence of *Rattus norvegicus*," *Inquiro, the UAB undergraduate science research journal*: Vol. 2011: No. 5, Article 8.

Available at: <https://digitalcommons.library.uab.edu/inquiro/vol2011/iss5/8>

This content has been accepted for inclusion by an authorized administrator of the UAB Digital Commons, and is provided as a free open access item. All inquiries regarding this item or the UAB Digital Commons should be directed to the [UAB Libraries Office of Scholarly Communication](#).

# The Benevolence of *Rattus norvegicus*

Timothy Fernandez

Whether 6 feet tall or just a few inches in height, heroes come in all sizes. A study done at the University of Chicago showed that even *Rattus norvegicus*, better known as the rat, has the urge to help a friend in need. Humans seem to use their senses of morality to put themselves above the rest of the animal kingdom, but this study showed that rats will often try to free trapped friends.

Humans share over 80% of their genes with the rat, so, from a genetic perspective, this behavioral similarity is not too surprising. Inbal Ben-Ami Bartal, a psychologist at the University of Chicago, conducted the study under the notion that the rats were capable of “emotional contagion,” a term indicating that the rats are able to feel each other’s pain. One rat was placed inside a clear cage that could be opened from the outside, and another rat was allowed to roam free. The unrestricted rat immediately took action to ease the other’s pain. After repeatedly circling, digging, and biting the cage, the roaming rat eventually learned how to liberate his comrade. Strikingly, once the free rat learned how to open the cage, he would almost immediately rescue his friend in need during every trial.

When the cage was empty, the rats largely ignored the restrainer. Even when a stuffed rat was placed in the cage, a similar result ensued. Only five rats out of 40 learned how to open an empty cage; the percentage shown for cages with stuffed rats is fairly comparable. However, 23 out of 30 rats easily learned how to open a cage when there was a fellow rat in distress.

In order to test the rats’ benevolence, another experiment was performed that made them choose whether to free a fellow rat, or five chocolate chips. Shockingly, the rats were equally likely to free their brethren first as their most beloved sweets. This came as a surprise to Bartal et al because the rats absolutely adored their chocolates. In fact, the study even shows that the rats shared their chocolate reward with their newly freed companion.

The question remains whether the free rat truly intended to ease the captive’s suffering or its own pain of hearing distressed whining. Either way, it is interesting to see that the hero rat responded to the call of duty. It shows that nature has made it rewarding for us to end the suffering of another. Somewhere in the mammalian genetic code is a possible calling to be a hero. Maybe next time tragedy occurs, your savior will be a real life “Mighty Mouse”.

