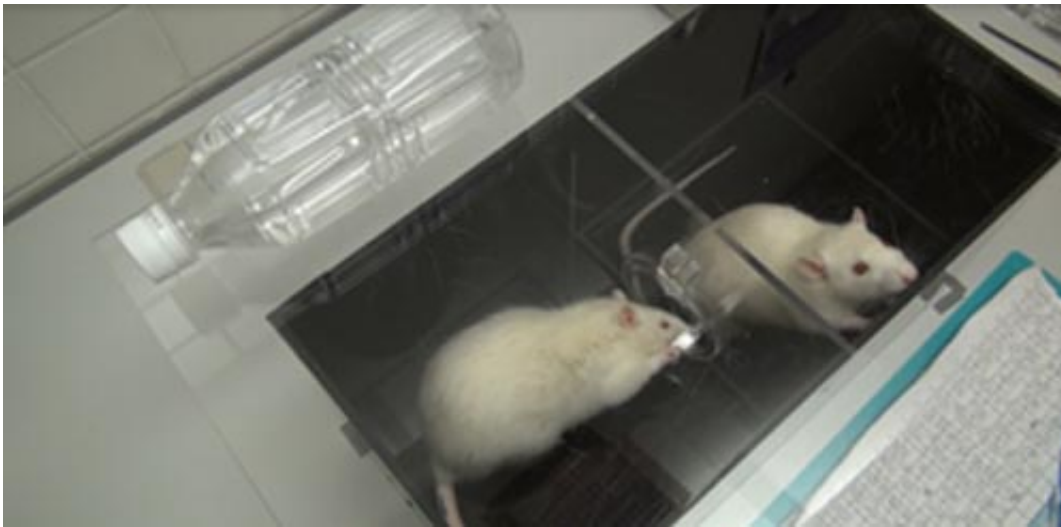


Study shows that rats will try to save members of their own species from drowning

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A study shows that rats will try to save members of their own species from drowning. Credit: Nobuya Sato

Rats have more heart than you might think. When one is drowning, another will put out a helping paw to rescue its mate. This is especially true for rats that previously had a watery near-death experience, says Nobuya Sato and colleagues of the Kwansei Gakuin University in Japan. Their findings are published in Springer's journal *Animal Cognition*.

Recent research has shown that a rat will help members of its own species to escape from a tubelike cage. The helping rat will show such prosocial behavior even if it does not gain any advantage from it. To see

whether these rodents will also help when one of their own is about to drown, Sato's team conducted three sets of experiments involving a pool of water. One rat was made to swim for its life in the pool, with another being in a cage adjacent to it. The soaked rat could only gain access to a dry and safe area in the cage if its cagemate opened a door for it.

Sato's team found that [rats](#) quickly learned that to help their distressed and soaked fellow rat, they had to open the door. The rats were, however, only quick to open the door when there was actually a truly distressed cagemate nearby who needed to be saved. The experiments also showed that rats dislike being soaked. Those who had a previous experience of being immersed in water were also much quicker at learning how to save a cagemate than those who had not been immersed.

The researchers also watched what happened when rats had to choose between opening the door to help their distressed cagemate or accessing a different door to obtain a chocolate treat for themselves. In most cases, rats chose to help their cagemate before going for the food. According to Sato, this suggests that, for a rat, the relative value of helping others is greater than the benefit of a food reward.

The results indicate that rats show empathy. These rodents can share in the emotional state of members of their own species, in this case that of distressed animals.

"Our findings suggest that rats can behave prosocially and that helper rats may be motivated by empathy-like feelings towards their distressed cagemate," says Sato, who believes that studies of sociality, such as empathy in rodents, are important for understanding the underlying neural basis of [prosocial behavior](#) as well as evolutionary aspects.

More information: Sato, N. et al. (2015). Rats demonstrate helping behaviour towards a soaked conspecific, *Animal Cognition*, [DOI](#):

[10.1007/s10071-015-0872-2](https://doi.org/10.1007/s10071-015-0872-2)

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