

Good animal welfare helps lab mice overcome bad things in life

August 26 2020



Credit: CC0 Public Domain

Research has revealed that anxious and depressed laboratory mice are more disappointed when something bad happens, but their low mood has no effect on how elated they are when something good happens.

Experts from Newcastle University have found that poor welfare may allow lab [animals](#) to experience some of the good things in life, but make them less resilient and potentially reduce the reliability of biomedical experiments.

Lead researcher, Dr. Jasmine Clarkson said: "Animals have emotions that are affected by what happens to them in their everyday lives. Like us, they can get anxious and depressed, but how does that change their experiences of the good and the bad things in life? We found that anxious and depressed laboratory [mice](#) are more disappointed when something bad happens, but their low [mood](#) has no effect on how elated they are when something good happens. So if we apply that to the welfare of our [lab animals](#), it means poor welfare still allows animals to appreciate reward but it makes them less resilient and potentially reduce the reliability of biomedical experiments. These are important findings which emphasize the benefits of the highest level of care that we should adhere to."

Tunnel handling

The research used tail handling to induce negative mood in [laboratory mice](#) studying the responses after picking up lab mice in two different methods—either by the tail, which we know makes them more stressed, or by using a tunnel handling, a method previously explored by this research team and which has been shown to be less stressful for the animals. The positive mood of mice was measured by their response to a sugar solution.

Candy Rowe, Professor of Animal Behavior and Cognition at Newcastle University, added: "These findings suggest that tunnel handling should be used for research purposes but more widely, that ensuring the best conditions for the animals we keep and work with will also ensure the best scientifically robust results."

The researchers found significant differences in behavioral and physiological measures which showed that the tail handled mice were more anxious, depressed and chronically stressed than the [tunnel](#) handled mice.

More information: Clarkson et al., Negative mood affects the expression of negative but not positive emotions in mice. *Proceedings of the Royal Society B* (2020). [DOI: 10.6084/m9.figshare.c.5088395.v2](https://doi.org/10.6084/m9.figshare.c.5088395.v2)

Provided by Newcastle University

Citation: Good animal welfare helps lab mice overcome bad things in life (2020, August 26) retrieved 23 May 2024 from <https://phys.org/news/2020-08-good-animal-welfare-lab-mice.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--