Guinea pigs not 'dumbed down' by domestication

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Despite reductions in brain size, domestication has not reduced the ability of guinea pigs to navigate a water maze. Researchers writing in BioMed Central's open access journal *Frontiers in Zoology* tested domesticated and wild animals ('cavies') and found that they both performed well at the test, with the domestic animals actually being slightly superior.

Lars Lewejohann worked with a team of researchers from the University of Münster, Germany, to investigate the differing abilities of the two types of guinea pig. He said, "Both wild and domestic guinea pigs were able to learn the water maze task. Interestingly, it seems that domesticated animals had the advantage in spatial orientation, while wild cavies were the stronger swimmers. This suggests an adaptation to the man-made environment in domesticated animals that allows more efficient problem solving".

The researchers used 15 male domestic guinea pigs, 13 female domestic guinea pigs, 13 male cavies, and 13 female cavies. They had to find a platform hidden under the surface of a circular pool of water using symbols on the walls of the tank for guidance. Wild animals were significantly stronger swimmers than domestic. Domestic guinea pigs, however, were better at deciphering the guidance symbols and using them to swim straight to the target area. According to Lewejohann, "Overall, our findings indicate that these animals will be suitable for further investigations of learning and memory".

More information: Wild genius - domestic fool? Spatial learning abilities of wild and domestic guinea pigs, Lars Lewejohann, Thorsten Pickel, Norbert Sachser and Sylvia Kaiser, *Frontiers in Zoology* (in press), www.frontiersinzoology.com/

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