

To bee an art critic, choosing between Picasso and Monet

October 23 2012

Honeybees are also discerning art critics, according to scientists from UQ's Queensland Brain Institute and the Federal University of Sao Carlos, Brazil.

The study, published in the [Journal of Comparative Physiology A](#), found honeybees had remarkable visual learning and discrimination abilities that extended beyond simple colours, shapes or patterns.

QBI researcher Dr Judith Reinhard said honeybees had a highly developed capacity for processing complex [visual information](#), and could distinguish landscape scenes, types of flowers, and even human faces.

"This suggests that in spite of their small brain, honeybees have a highly developed capacity for processing complex visual information, comparable in many respects to vertebrates," she said.

Dr Reinhard and her team investigated whether this capacity extended to complex images that humans distinguish on the basis of artistic style, including Impressionist paintings by Monet and Cubist paintings by Picasso.

"We were able to show that [honeybees](#) learned to simultaneously discriminate between five different Monet and Picasso paintings, and that they did not rely on luminance, colour, or spatial frequency information," she said.

When presented with novel paintings of the same style, the bees demonstrated an ability to generalise, suggesting they could differentiate Monet from Picasso by extracting and learning the characteristic visual information inherent in each style.

"Our study suggests that discrimination of [artistic styles](#) is not a higher cognitive function that is unique to humans, but simply due to the capacity of animals – from insects to humans – to extract and categorise the visual characteristics of complex images," Dr Reinhard said.

More information: "Honeybees can discriminate between Monet and Picasso paintings" [DOI: 10.1007/s00359-012-0767-5](https://doi.org/10.1007/s00359-012-0767-5)

Provided by University of Queensland

Citation: To bee an art critic, choosing between Picasso and Monet (2012, October 23) retrieved 18 April 2024 from <https://phys.org/news/2012-10-bee-art-critic-picasso-monet.html>

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.
