

Newborn chicks are attracted to objects that move upwards, shows study

March 7 2023



Credit: Pixabay/CC0 Public Domain

From birth, animals can use their spontaneous preferences (predispositions that are not learned) to decide which stimuli to attend and approach. Previous research has shown how infants and newborn

chicks, with no previous experience with animals, are spontaneously attracted by the movement of living organisms. Now, new findings demonstrate how the movement against gravity can be particularly good in attracting our attention, since only living beings can consistently move upward against gravity. This research is an important contribution to our understanding of inner cognitive models of behavior and activity in early stages of life.

The research is published in the journal *Biology Letters*.

Researcher Dr. Elisabetta Versace, Royal Society Leverhulme Trust Senior Fellow and Senior Lecturer at Queen Mary, said, "We find people and other animals extremely attractive objects to pay attention to; as soon as we see the walking of a dog, or the climbing of a lizard, our attention is all on them.

"It has been found that even [infants](#) and newborn chicks, with no [previous experience](#) with animals, are spontaneously attracted by the movement of living organisms. We showed how a very simple cue such as movement upward is able to trigger our attention."

The research set out to test whether upward movement against gravity is attractive at birth before any previous visual experience in the world.

The researchers tested the spontaneous preferences of newly hatched chicks, at their first experience with [visual stimuli](#), using [artificial intelligence](#) to automatically track the movement of animals. They used similar stimuli to those used to test human expectations on gravity in the Ferrè laboratory.

They found that when given a choice between a circle moving upward or downward on computer screens, newly hatched chicks spontaneously approached upward moving stimuli. Prior to these experiments, it was

thought that the configuration of multiple "joints" of a moving animal triggered attention to living beings. The experimental findings showed that a single moving dot can give the interesting feature of a living object.

The findings demonstrate the predisposed knowledge that [vertebrate animals](#) are born with, and that can be used to test for spontaneous abilities that are already available at birth. This is a crucial step to understand how sensitivity to simple, low-level features can help shape our activities from the initial stages of life. This is also important to understand the inner cognitive models that guide our behavior on Earth, under terrestrial gravity, and in non-terrestrial [gravity](#).

More information: Larry Bliss et al, A spontaneous gravity prior: newborn chicks prefer stimuli that move against gravity, *Biology Letters* (2023). [DOI: 10.1098/rsbl.2022.0502](https://doi.org/10.1098/rsbl.2022.0502)

Provided by Queen Mary, University of London

Citation: Newborn chicks are attracted to objects that move upwards, shows study (2023, March 7) retrieved 24 April 2024 from <https://phys.org/news/2023-03-newborn-chicks.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.