

# Consciousness

The evolution of learning and the origins of consciousness

**Eva Jablonka**

Professor of Genetics, Tel-Aviv University

**Monday 12 February at 16:15 in Egget, Studentsenteret.**

Coffee and refreshments will be served from 15:45.

**Charles Darwin was deeply interested in the evolution of the mental powers of animals although he refused to address the evolutionary origins of mentality: “I must premise that I have nothing to do with the origin of the primary mental powers, any more than I have with that of life itself”.**

In this lecture, Eva Jablonka will address the question of the origins of animal mentality, which Darwin avoided, and present an evolutionary approach for studying it, developed together with Simona Ginsburg.

Jablonka will explain the rationale and methodology underlying their approach and present their proposal that the emergence of primary consciousness was driven by the evolution of a domain-general, representational form of associative learning, which they called **unlimited associative learning (UAL)**.

By characterizing UAL and following its evolution, Jablonka argues one can figure out how primary mental powers (minimal consciousness) had emerged, what the neural dynamics of minimal consciousness are like, how consciousness is distributed in the living world, and in which ecological context it first emerged.

She goes on to argue that UAL drove the Cambrian explosion of complex animal life forms, and that fish are minimally conscious, although the brain organization that supports UAL and primary consciousness in fish is somewhat different from that of humans and other mammals.

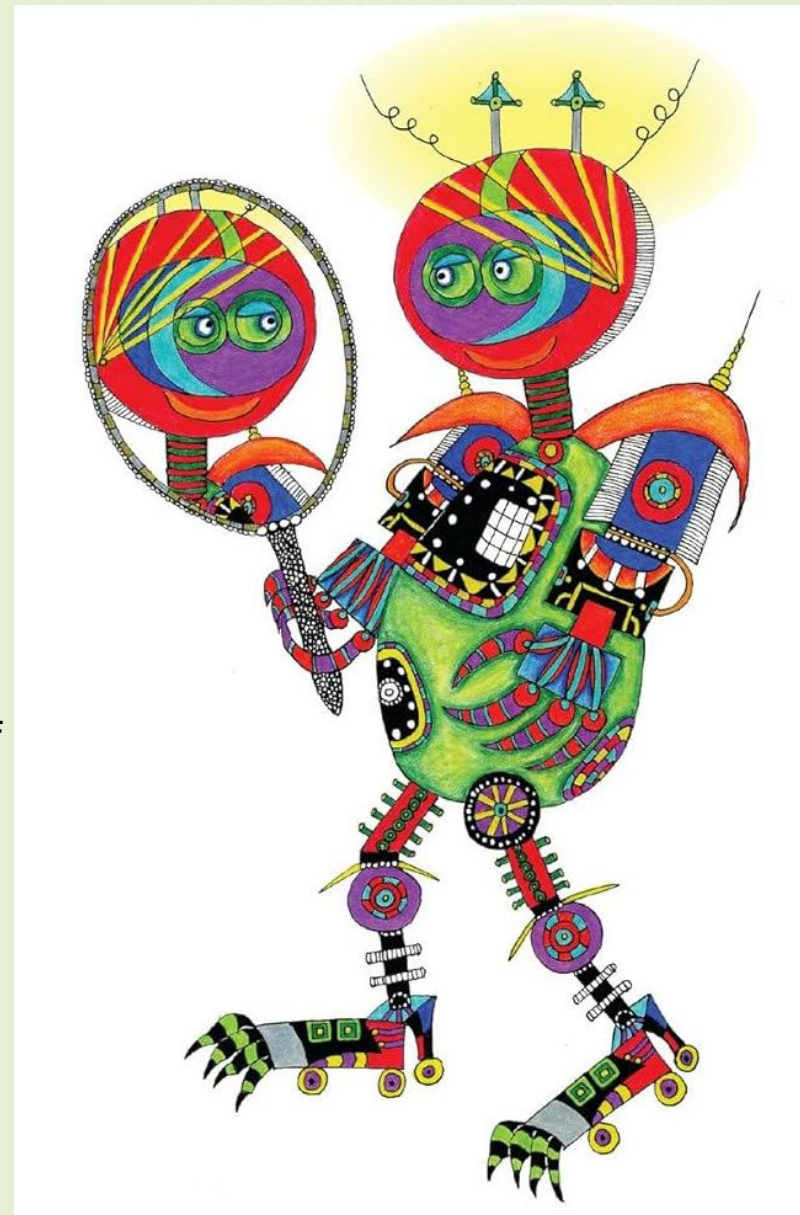
Jablonka ends by discussing the unique features of human reflective/symbolic consciousness and suggests that the evolution of language drove the evolution of symbolic human consciousness to completion.

[The illustration is cover art by the artist Anna Zeligowski for Jablonka's book **Picturing the Mind: Consciousness through the Lens of Evolution** (2022), written together with Simona Ginsburg.]

Everyone is welcome! The lecture is intended for a wide audience, will be held in English, and is part of the **Horizons** seminar series of the *Faculty of Mathematics and Natural Sciences* dedicated to big questions. Coffee and refreshments will be served from 15:45.



**Eva Jablonka** is professor at the **Cohn Institute for the History of Philosophy of Science and Ideas** at Tel Aviv University. She is an evolutionary theorist and a geneticist. With **Marion Lamb** she wrote the book **Evolution in Four Dimensions** (2005) where they argued that epigenetics, social learning and symbolic language are three extra evolutionary dimensions on top of classical genetic inheritance. With **Simona Ginsburg** she wrote **The Evolution of the Sensitive Soul: Learning and the Origins of Consciousness** (2019) where they, after reviewing the history of philosophical, psychological, biological and neuroscientific theories of consciousness, proposed that the origin of consciousness was based on the gradual evolution of learning and cognition. This evolution also led to evolution of emotion and stress management and was a major factor in the Cambrian explosion of complex animal life. The origin of consciousness is followed up in the book **Picturing the Mind: Consciousness through the Lens of Evolution** (2022), also with Ginsburg and illustrated by the artist Anna Zeligowski.



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